

MEDIEVAL ARCHITECTURE IN THE OLTU-PENEK VALLEY: A PRELIMINARY REPORT ON THE MARCHLANDS OF NORTHEAST TURKEY

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INTRODUCTION

In September of 1977 and August of 1983 I conducted field surveys in the Oltu-Penek valley. The intent of this paper is to describe systematically all of the medieval churches and fortresses that were photographed and measured during those two seasons.¹ The extent to which this information can be applied to the controversies involving the boundaries of Georgian and Armenian provinces is discussed in the conclusion. My investigation of this region was limited to a small extent due to travel restrictions which were imposed by the Turkish military. The two sites which I could not visit, Kamhis and Sağoman, are near the northeast cor-

ner of the valley (fig. 1).² I believe that my survey of the rest of the valley is extensive enough to deal with the region as a geographical unit. The sites in this report are catalogued by their modern Turkish names. When the original Georgian and Armenian designations are known, they are cited in parentheses and followed by a brief history. All of the sites are arranged in geographical sequence from south to north. Since no excavations were undertaken, the descriptions and plans are based on surface remains.³

The Oltu-Penek vale is clearly defined by the topography (fig. 1).⁴ In general the mountains of northeast Turkey are aligned on a northeast-

¹ I accept full responsibility for any errors in the commentary or plans. Messrs. Peter J. Kasavan and Jack Herbert joined me during these surveys in the *vilâyet* of Erzurum. I am indebted to both of them for their assistance in preparing the plans. The bulk of this article was written during the first term of my two-year fellowship at Dumbarton Oaks. To my colleagues and the Dumbarton Oaks staff I owe a debt of thanks for their kindness and advice. I am especially grateful to Dr. Gianfranco Fiaccadori for inserting the comment on itacisms in note 40, *infra*. Without the counsel and support of Avedis K. Sanjian, Narekatsi Professor of Armenian Studies at the University of California (Los Angeles), I would not have undertaken this project in the Marchlands.

My 1983 season was funded by generous grants from the Armenian Educational Council, the Dr. Eliza Melkon Fund of the Armenian General Benevolent Union, the Alex and Marie Manoogian Foundation, and dozens of individuals in the greater San Francisco Bay Area and Salinas. Over the last decade many friends have offered their encouragement at a time when the logistics of undertaking so many field surveys seemed insurmountable. Let me now express my deepest gratitude to: Jack and Mary Aslanian, Richard and Beatrice Hagopian, Bettie and Jerome Kasavan, Allen Odion, Loraine Parker, V. L. Parsegian, Jackie Sadakian, Serop Samurkashian, and Carlo Uomini.

² Fortunately, plans and photographs of the church at Kamhis have been published, but the fortress of Sağoman is still unsurveyed. I was unable to locate the reputed churches at Zartanes (3 km south of Cücürüs) and Sehçek (2 km northeast of Siksor). In the village of Tamrut (Tambot), which is located 4 km northwest of Oltu, there is only a standing mosque. See: N. and D. Gutschow, "Kirchen in Tao-Klardjethien in der nordöstlichen Türkei," *AMIran*, n.f. 4 (1971), 237-47; note 30 *infra*; and I. Zdanévitch, *L'Itinéraire géorgien de Ruy Gonzales de Clavijo et les églises aux confins de l'Atabégat* (Paris, 1966), 7 (Nos. 50-51, 59, 65, and 67), 12, 14.

³ My plans, photographs, and narrative predate the devastating earthquake that struck this region in November of 1983. At this time I do not know the extent to which these sites were damaged (if at all). All of my photographs from the Pontos and the Marchlands of Turkey are deposited in the archives of Dumbarton Oaks, Washington, D.C.

⁴ Two of the most detailed maps of this region are: the Deutsche Heereskarte, Blatt-Nr. C-XV (1:200,000), Oltu, 1941; and the U.S.A.F. Tactical Pilotage Chart, G-4B, 2nd ed. (1:500,000), 1966. For a discussion of the topography in its regional context see: C. Lehmann-Haupt, *Armenien einst und jetzt*, II (Berlin, 1931), 785-809; and H. Lynch, *Armenia, Travels and Studies*, I (London,

southwest axis, following the Tatos Dağları at the east end of the Pontic range.⁵ Specifically, the Oltu-Penek valley is formed at the southwest by Masrik Dağ and the northeast spurs of Kara Dağ. To the east of Kara Dağ and outside the boundaries of the valley is the town of Narman/Pitgir (Georgian: Mamrovani; Armenian: Mamruan). Northeast of Narman is Kavaklı Dağ and the two peaks which shape the east flank of the Oltu-Penek valley: Abusar Dağ and Baskut Dağ. To the northeast of Masrik Dağ a line of mountains known as the Ak Dağları forms the west and part of the north flank of the valley. A series of unnamed peaks, which link Olan and Sağoman to Baskut Dağ, mold the convex outline of the valley's northeast corner. At irregular intervals these encircling mountains are opened up by gorges which the spring runoff has patiently carved over the millennia. The two principal rivers in the valley are the Oltu Suyu and the Penek Suyu. The former is fed mainly by the streams in the mountains at the south and flows northeast into the Pernek canyon, where it eventually meanders west past İşhan to join the Çoruh Nehri. The river Penek, which is a collection of northern tributaries, joins the Oltu Suyu in the Pernek canyon.

Oltu Kalesi is located at the junction of two roads. One route, which winds north from Narman, is today a critical link in the highway connecting Erzurum to Artvin (via Tortum). Between Kara Dağ and Masrik Dağ there is a second trail which links Tortum and Oltu. This road too is of considerable antiquity, but today it handles less vehicular traffic. The fortress at Oltu can efficiently control both

roads. Two smaller passes in the west flank of the Oltu-Penek valley are traversable today only by jeep or pack animal; the passes are guarded by the small garrison forts near Cücürüs and Siksor. At the north end of the valley the road to Artvin passes through the Pernek canyon, guarded by Kız Kalesi.⁶ The other major road at the northeast connects Göle to Oltu. Sağoman Kalesi guards a secondary route, which connects Penek and Kamhis to points north, but does not protect the Göle road. The trail between Abusar Dağ and Baskut Dağ is likewise unguarded by any known fortification.

Oltu

According to P^{awstos} Buzand,⁷ the Mamikoneans administered the Armenian province of Tayk^ç as early as the fourth century A.D. Oltu (Armenian: Ut^çik^ç, Uxt^çeaç, Utt^çeaç, Olti; Georgian: Oltisi), which lies within the boundaries of this province,⁸ is not mentioned in surviving texts until the eighth century. Although the Pseudo-Movsēs Xorenac^ı declares that Tayk^ç was protected by Armenian castles at an early date,⁹ it is risky even to speculate in what century the Armenians built this fortress at Oltu. All that can be said is that Oltu was a fortified site when the Georgian Bagratids occupied the region in the ninth century.¹⁰ After the death of the Iberian Curopalate David in 1000, the Emperor Basil II bestowed on Bagarat III the title Curopalate, but without authority over the province of Tayk^ç. Aristakēs Lastivertc^ı mentions that

⁶See *infra*, notes 82 and 103.

⁷P^{awstos} Buzand, *Patmut' iwn Hayoc'* (Venice, 1933), 58, 76, 137; Adontz, *Armenia*, 100, 236, 243–44; and C. Toumanoff, *Studies in Christian Caucasian History* (Washington, D.C., 1963), 138, 209 f. According to T^ç. Hakobyan (*Urvagcer Hayasani Patmakan Aşxarhagrut'han* [Erevan, 1960], 257), the *numu* of the Mamikoneans is in the Oltu-Penek valley.

⁸Refer to my Conclusion herein and see also: Adontz, *Armenia*, 21–22 note 42; H. Hübschmann, *Die altarmenischen Ortsnamen* (Straßburg, 1904), 276–78, 360 f; and M. Yovhannēsean, *Hayasdani Berderā* (Venice, 1970), 609.

⁹Movsēs Xorenac^ı, *Matenagrut' iwnk'* (Venice, 1865), 610. Ehişē says that Tayk^ç is protected by Armenian fortresses in the mid-5th century and even has its own bishop, Taçat. See: Ehişē, *Ehişēi, vasn Vardanay ew Hayot'ç Paterazmin*, ed. E. Tēr-Minasean (Erevan, 1957), 28, 127; and Ehişē, *History of Vardan and the Armenian War*, trans. and commentary R. Thomson (Cambridge, Mass., 1982), 81, 179, 258, 288. A passage in Sebēos implies that Tayk^ç was already fortified by resident Armenians in the time of Heraclius (610–614). Consult the *Histoire d'Héraclius par l'évêque Sebēos*, trans. F. Macler (Paris, 1904), 107.

¹⁰Ł. Inçičean, *Storagrut' iwn Hin Hayastaneayc'* (Venice, 1822), 123, 126; and H. Taşean, *Tayk^ç, Drac'ik' ew Xotorfur* (Vienna, 1973), 212 ff.

1901), 430 ff. Few of the 19th-century travelogues on Armenia and Georgia discuss this valley; those that mention Oltu and Penek provide little useful information on the architecture (*ibid.*, II, 472–82). The earliest modern account of the topography in this region is K. Koch's 1844 study of the Pontic mountains (*Wanderungen im Oriente während der Jahre 1843 und 1844*, II, *Reise im pontische Gebirge und türkischen Armenien* [Weimar, 1846], 239–52). Some of the names which he applies to the rivers and valleys are no longer in use today. In the mid-19th century the Oltu-Penek valley was part of a single administrative unit. Also see W. Allen, "The March-Lands of Georgia," *The Geographical Journal*, 74 (1929), 150–56.

Medieval chroniclers were very aware of the intimate political and geographical relationship between Oltu and Penek (Georgian: Bana). In one Georgian chronicle it is remarked that the Turks could lay siege to Bana because Oltu was in their hands. See: *Histoire de la Géorgie*, I, *Histoire ancienne*, trans. M. Brosset (St. Petersburg, 1849), 532 f.; and T. Wakhoucht, *Description géographique de la Géorgie, Publiée d'après l'original autographe par M. Brosset* (St. Petersburg, 1842), 119.

⁵N. Adontz, *Armenia in the Period of Justinian*, trans. and rev. N. Garsoïan (Lisbon, 1970), 51.

the Emperor occupied a number of key areas in Armenia, as well as fortresses and towns in the region of Oltu.¹¹ Basil personally selected Greek functionaries to administer this district before he returned to Constantinople.¹² According to Asofik, this attempt by the Emperor to remove Tayk^c from Iberian control was swiftly challenged in 1001 by King Gurgēn II of Georgia, who laid siege to the “small castle of Oltu.”¹³ Gurgēn failed to occupy any of the fortresses in this area and retired to Narman, where a peace was negotiated with Basil’s general, Uranos. When Bagarat III died in 1014, his son Gēorgi refused Basil’s demand to turn over the possessions his father had held as Curopalate; wherewith the Emperor dispatched troops to enforce his edict and strengthen the loyal garrison—probably made up of Greek and Armenian mercenaries—in Oltu castle. A brief confrontation near the “great castle of Oltu” between the Byzantine army and the “brave sons of Tayk^c” resulted in the tactful retreat of one side, and no harm came to

the town or its fortress.¹⁴ Aristakēs Lastivertcⁱ notes that this confrontation with Basil’s forces marked the beginning of the ruin of Tayk^c. In 1021 Basil II brought his army to eastern Anatolia and attempted to negotiate a settlement with King Gēorgi. Instead, the latter chose to attack Oltu. He ordered his troops to set its magnificent buildings on fire and to pillage, but not to harm its citizens.¹⁵ The Emperor reacted quickly and recaptured Oltu; Gēorgi and his forces were driven as far as Lake Çıldır.

At some unspecified date in the 1070s the town and fortress of Oltu were occupied by the Seljuks. From the eleventh through the fifteenth century the Georgians seem to have taken possession of the site for several lengthy periods of time.¹⁶ In the sixteenth century the Ottomans stationed a large garrison in the fort, where they resided until 1829, when the Russians briefly occupied the site.¹⁷ Russian and Armenian troops reoccupied the castle from 1878 to 1920, and from 1924 to 1977 it became an observation post for the Turkish army and consequently was off limits to most visitors. This

¹¹ Aristakēs Lastivertcⁱ (Aristakēs de Lastivert), *Récit des malheurs de la nation arménienne*, trans., intro., and commentary M. Canard and H. Berbérian (Brussels, 1973), xx–xxi, 6; cf. E. Honigmann, *Die Ostgrenze des byzantinischen Reiches von 363 bis 1071* (Brussels, 1935), 156–58.

¹² *Ibid.*; and Asofik, *Des Stephanos von Taron armenische Geschichte*, trans. H. Gelzer and A. Burchardt (Leipzig, 1907), 211 f. There is insufficient evidence to determine exactly how Tayk^c and Tao were incorporated into the Greek frontier themes. It is likely that the majority of both provinces were included in the theme of Iberia. See: K. Juzbašjan, “Zaveščanie Evstafija Voily i voprosy femnoi administracii ‘Iverii,’” *VizVrem*, 36 (1974), 73–82; *idem*, “L’Administration byzantine en Arménie aux X^e-XI^e siècles,” *REArm*, n.s. 10 (1973–74), 154–83 (especially note 111); Toumanoff, *Studies*, 485–98; H. Ahrweiler, “Recherches sur l’administration de l’empire byzantin aux IX^e-XI^e siècles,” *BCH*, 84 (1960), 59 note 12, republished in *Études sur les structures administratives et sociales de Byzance* (London, 1971); N. Oikonomides, “L’Organisation de la frontière orientale de Byzance aux X^e-XI^e siècles et le Taktikon de l’Escorial,” *XIV^e Congrès International des Études Byzantines, Rapports II* (Bucharest, 1971), 73–90; *idem*, *Les Listes de préséance byzantines des IX^e et X^e siècles* (Paris, 1972), 340 ff.; W. Seibt, “Miscellen zur historischen Geographie von Armenien und Georgien in byzantinischer Zeit,” *Handes Amsorya*, 90 (1976), 634–42; Constantine Porphyrogenitus, *De Thematis*, ed. A. Pertusi, ST, 160 (Vatican City, 1952), 63–73, 117–39; *idem*, *De Administrando Imperio*, ed. and trans. G. Moravcsik and R. Jenkins, *Dumbarton Oaks Texts*, I (Washington, D.C., 1967), 189–222, 284–86; Ioannis Scylitzae, *Synopsis Historiarum*, ed. J. Thurn, CFHB, V (Berlin and New York, 1973), p. 438: 8.61 f., p. 448: 12.54 f., pp. 339 f.: 20.69–81; V. Arutjunova-Fidanjan, “‘Iver’ v vizantiiskix istočnikax XIv,” *Banber Matenadarani*, 11 (1973), 46–66; *eadem*, “Ešče raz o feme ‘Iverija,’” *Kavkaz i Vizaitija*, I.1 (Erevan, 1979), 36–55; H. Bart’ikyan, “O feme Iverija,” *Akademija Nauk Armjanskoj SSR, Vestnik Obščestvennyx Nauk*, 12 (1974), 68–79; *idem*, “La Conquête de l’Arménie par l’empire byzantin,” *REArm*, n.s. 8 (1971), 327 ff.; and *infra*, note 43.

¹³ Asofik, 212.

¹⁴ Aristakēs, 7f.; cf. Honigmann, *Ostgrenze*, 161 f. According to V. Arutjunova-Fidanjan (“Sur le problème des provinces byzantines orientales,” *REArm*, n.s. 14 [1980], 161 ff.), the Greek army followed a route of invasion which coincided with the locations of the Armenian Chalcedonian communities. Basil sought to maintain his natural base of support. These nonorthodox (i.e., Chalcedonian) Armenians in the Oltu region came under the authority of the Patriarch of Antioch. Also see E. Danielyan, “Vasil b-i 1000 t. arevelyan aršavank’i npatakə ev ert’utin,” *Akademija Nauk Armjanskoj SSR, Vestnik Obščestvennyx Nauk*, 10 (1973), 61–73.

¹⁵ Aristakēs, 12 f.; and *Histoire de la Géorgie*, 306.

¹⁶ Gregory the Priest, *RHC Doc. Arm.* I, 195; A. Berkian, *Armenischer Wehrbau im Mittelalter* (Diss., Darmstadt, 1976), 102; *Histoire de la Géorgie*, 369, 395, 532 f.; and Wakhoucht, *Description*, 119. In a passage from the Biography of David it seems that King Georgi re-extended Georgian influence through this valley in 1074 (see K. Juzbašjan, “L’Administration,” 167 note 136). The last specific reference to a Byzantine army in Oltu is from Matt’ēos Urhayecⁱ (*The Chronicle of Matthew of Edessa*, trans. and commentary A. Dostourian [Diss., Rutgers], University Microfilms International [1972], 112), who relates that the *paracoenomenus* Nicolas spent the winter there in 1044. Smbat repeats this story (see K. Juzbašjan, “L’Administration,” 172) and adds that Oltu is in the *gawar* (theme?) of Theodosiopolis.

¹⁷ For most of the Ottoman period Oltu was a separate *sancak*. Evliya Çelebi (*Narratives of Travels in Europe, Asia, and Africa in the Seventeenth Century*, trans. J. von Hammer [London, 1834] I.1, 95, 100; II, 178 f.) refers to this fortress as Ulini castle. Unfortunately, his numerous references to other fortresses in the region are difficult to associate with the few sites known at present. He mistakenly credits the Georgians with building most of the fortified sites, because they were the last Christians to be expelled. Koch (*Wanderungen*, II, 250 f.), who visited Oltu in 1844, noted that traces of the Russian attack were still visible near the city wall and fortress. In the mid-19th century this medieval circuit was still standing to a substantial height.

fortress has never been the subject of an architectural survey.

Today Oltu can easily be reached by driving the all-weather asphalt road from Erzurum. Oltu Kalesi is located on an impressive outcrop of limestone, just east of the center of the modern town. The walls of the fortress conform to the roughly triangular shape of the outcrop. The rather steep sides of the natural hillock were formed by the uplifting of deep sedimentary layers. Anchored on the most northerly projection of the outcrop is tower B (figs. 2–4). This salient is actually an extension of the northwest circuit wall; its rounded protruding face is sharply defined by a small angled buttress to the south. With the exception of this buttress, it is clear that the builders made a very conscious effort to present only a rounded, curving face on the façade. From tower B the circuit continues in a southeasterly direction until it turns to the south at the small salient D.

Below and to the east of the wall between B and D is the outwork-circuit which once abutted to the castle and extended for at least 130 m across the valley floor before turning to the south (this wall does not appear on fig. 2; see figs. 3–4). Although this lower circuit is badly damaged today and still plundered for its masonry, one rounded salient survives at the north (fig. 5). I believe that this wall once encircled a sizable area which constituted the medieval town of Oltu. Some of the substantial remains of medieval and Ottoman construction in modern Oltu are within the confines of its probable circumference.¹⁸ One of these premodern buildings is an early Ottoman (?) hamam (fig. 5, right of center).

The wall south of tower D eventually merges into the massive salient E (figs. 2, 6). In respect to its size, tower E is the largest masoned unit which I have seen in any fort of eastern Anatolia. Except for a corridor in its north flank (which I will discuss momentarily), it appears to be solid. This tower is perched on the highest point of the outcrop, and its once crenellated top provided sufficient space for the archers to protect the entrance (fig. 7). At the foundation of the southeast flank of E there are substantial fragments of wooden poles (fig. 7, far right, center). These probably supported some sort of removable brattice, which was manned by

archers from above. Just below and to the south of this brattice a section of wall runs in a southeasterly direction (this wall does not appear on fig. 2; see figs. 4, 6–7). I am convinced that this section of circuit is the west end of the south flank of the town's circuit wall.¹⁹ At the southeast end of E the base of the salient is protected by a talus (fig. 8). Earthquakes and displacement are widening large fissures in the face of tower E (figs. 7, 9). Unless corrective measures are taken soon, the entire salient is in danger of collapse.

The exterior of salient E, the tower between J and E, and the fortress-circuit from B to E and B to K-L have a uniform type of facing stone bound to a poured core. The facing appears to represent one period of construction.²⁰ The exterior masonry is characterized by rectangular stones which are laid in neat parallel courses with thick but regular margins of mortar (fig. 9). The average length of a stone is 28 cm and the average height is 17 cm. In some cases small rock chips are inserted in the exterior margins of mortar. On tower E the facing appears to have been laid in two phases so that the larger stones are confined to the south face (cf. figs. 7, 9, 11; fig. 10, upper right). However, the core in E appears to be consistent throughout. This general style of masonry is identical to that used by Armenian castle-builders in the regions of Ayararat and Cilicia.²¹ Considering that the characteristic features of this fortress (e.g., a complicated en-

¹⁹ It is a feature of some medieval Armenian settlements to attach the town's circuit wall to the flank of the fortress-outcrop (e.g., Kars, Erzurum, and Van). See: Berkian, *Armenischer*, 103–9, 153–58; and cf. note 17 *supra*.

²⁰ Repairs from a later period are visible at the top of the circuit (fig. 7).

²¹ While the facing stones of the Armenian garrison forts in Cilicia display a surprising degree of uniformity from site to site, the Armenian masonry in northeastern Turkey prior to the mid-10th century varies from the ashlar at Oltu (fig. 9) to the crude blocks of Kız (near Olan) (fig. 61). The use of crude masonry is probably due to a combination of hasty construction and limited financial resources. No matter which masonry is used, Armenian garrison forts always share common architectural features. See: R. Edwards, "Bağras and Armenian Cilicia: A Reassessment," *REArm*, n.s. 17 (1983); *idem*, *The Fortifications of Medieval Cilicia* (Diss., Berkeley), University Microfilms International (1983), 49–91; *idem*, "The Fortress at Doğubeyazıt (Daroynk)," *REArm*, n.s. 18 (1984); *idem*, "The Garrison Forts of the Pontos: A Case for the Diffusion of the Armenian Paradigm," *REArm*, n.s. 19 (1985); *idem*, "The Crusader Donjon at Anavarza in Cilicia," *Abstracts of the Tenth Annual Byzantine Studies Conference* (Cincinnati, 1984), 53–55; *idem*, "Armenian Fortifications," *The International Military Encyclopedia* (Gulf Breeze, Florida, 1984); *idem*, "On the Supposed Date of Yılan Kalesi," *Journal of the Society for Armenian Studies*, 1 (1984), 23–33; and *idem*, "The Fortress of Şebinkarahisar (Koloneia)," *Corsi Rav*, 32 (1985).

¹⁸ For an account of the Turkish history and architecture of Oltu see: S. Önal, *Milli Mücadele'de Oltu* (Ankara, 1968); and A. Uluçam, "Oltu'da Arslanpaşa Külliyesi," *Vakıflar Dergisi*, 17 (1983), 93–107. In the latter, plate 8 shows part of a Georgian relief adapted to the door of the Arslanpaşa Camii.

trance; massive, bulging salients; an asymmetrical plan adapted to the outcrop; battered walls; and the avoidance of quoins and sharp corners on the exterior) are all commonplaces in Armenian military architecture, this first and most extensive period of construction belongs to the Mamikoneans, not the Georgians.²²

A second period of construction saw the erection of the entrance-complex H and salient G (fig. 2). H consists of a partially covered angled corridor leading from an outer gate (figs. 7–8) to an inner gate on the west flank of tower E (fig. 10). Just what necessitated the construction of a new gate is unknown. What is apparent is that the masonry of the gate-corridor along with the flanking salient G is consistent, but very unusual. It comprises small, extremely crude (occasionally unhewn) stones held in somewhat irregular courses by a massive poured

core. In areas where it abuts the masonry from the first period the contrast between the two is very sharp (fig. 10, lower right). This masonry is also evident on the west flank, where it is used to rebuild most of tower J (fig. 10; the tower immediately south of J is from the first period of construction).²³ Farther to the northwest the contrast in masonry types is also evident in the upper third of L (fig. 3), where massive repairs were carried out. It is impossible to determine which occupants are responsible for the second building period. Certainly the Armenians, Georgians, Byzantines, and Seljuks are likely candidates.

Before 1977 a third major period of construction was undertaken by the Turkish Army Corp of Engineers for the purpose of repairing and reinforcing the walls and outcrop. The masonry of this period consists of roughly cut square and polygonal stones which are laid in thick beds of mortar. The regularity of the courses in this third period masonry seems to vary greatly.²⁴ For example, in the talus at the southeast end of tower E polygonal stones of a slightly reddish color are laid in a very haphazard way (fig. 8). This third period masonry probably covers an earlier talus. Repairs with an identical masonry extend around the lower level of the outer gate. Modern reconstruction is also apparent in the zigzag approach to the outer door (fig. 8). The largest undertaking of this third period is evident on the southwest flank, where two sets of descending retaining walls are built with a grayish stone in fairly regular courses.²⁵ The smaller and most southerly of the two is built below G (fig. 2). The larger, to the northeast, was designed to prevent the erosion and collapse of the west flank (fig. 11). The top of each tier of this massive revetment has a covering of neatly laid stones to prevent absorption into the masonry and ground underneath. At the base of tower J and the adjoining tower to the southeast the Turkish engineers constructed a flat-topped extension to protect the salients. Most of the circuit between J and L is from

²²In Georgian military architecture there is a definite tendency (with only a few exceptions, e.g., the castle at Ackuri) for the circuit walls to follow a symmetrical plan, even when built on an irregular outcrop (e.g., Dzamis). Square and polygonal towers are employed as frequently as rounded salients. Most of the rounded towers built by the Georgians taper dramatically so that the diameter of the base is substantially greater than that of the top. While this provided the tower with a very stable foundation, it reduced the amount of space available for archers on the battlements. For the most part entrances are not complicated. In the exposed corners of circuit walls and towers quoins are frequently used. The style and quality of facing stones in Georgian fortifications varies greatly. Donjons are extremely common. See: R. Mepisashvili and V. Tsintsadze, *The Arts of Ancient Georgia* (New York, 1979), 47–58; A. Alpago-Novello et al., *Art and Architecture in Medieval Georgia* (Louvain-la-Neuve, 1980), 193–240; P. Zakaraja, *Kahetis saportipikatsio nagebobani* (Tbilisi, 1962); *idem*, *Drevnie kreposti Gruzii* (Tbilisi, 1969); and D. Mšvenieradze, *Stroitel'noe iskusstvo v drevnei Gruzii* (Tbilisi, 1959). From this paradigm it seems likely that Zil Kale, on the borders of Lazistan, is a Georgian construction rather than Greek or Armenian. See: G. Astill and S. Wright, "Zil Kale," *Archeion Pontou*, 34 (1977–78), 28–48; and A. Bryer, "Historical Note on Zil Kale," *Archeion Pontou*, 34 (1977–78), 49–56.

I am working under the assumption that the Georgian Bagratids, who occupied the Oltu-Penek valley, would have built their fortresses by Georgian standards, not Armenian. This is certainly true of the Iberian churches built in this region, where the major foreign influence is limited to relief sculpture. See: W. Djabadze, "The Georgian Churches of Tao-Klarjet'i: Construction Methods and Materials (ix to xi century)," *OrChr*, 62 (1978), 114–34; *idem*, "The Donor Reliefs and the Date of the Church at Oški," *BZ*, 69 (1976), 39–62; K. Salia, "La Tao-Klardjethie et ses monastères," *Bedi Kartlisa*, nos. 36–37 (1961), 41 ff.; M. and N. Thierry, "Notes d'un voyage en Géorgie turque," *Bedi Kartlisa*, nos. 34–35 (1960), 10–29; E. Takaišvili, *Arxeologičeskaja ekspedicija 1917–go goda v južnye provincii Gruzii* (Tbilisi, 1952); D. Winfield, "Some Examples of Early Christian and Byzantine Influence on the Monuments of Tao Klardjethi," *Second International Symposium on Georgian Art* (Tbilisi, 1977), 1–19; and *idem*, "Some Early Medieval Figure Sculpture from North-East Turkey," *JWarb*, 31 (1968), 33–72. The extent to which the military architecture of the Georgian Bagratids was influenced by Armenian models will be discussed in my Second Preliminary Report on the Marchlands.

²³The upper level of J contained some sort of room; fragments of two square-headed windows (not shown on fig. 2) are still visible (fig. 12, right).

²⁴Because the color and shape of this masonry can vary, it is likely that these repairs were not carried out uninterrupted. Considering the extensive repairs that the Russians undertook in the fortresses in northeast Turkey (e.g., Bayburt, Kars, and Erzurum), it is possible that some of this third period construction dates to the late 19th century. See Berkian, *Armenischer*, 99, 108 f.

²⁵It is possible that these retaining walls are built over medieval revetments.

the first period of construction. There is evidence of recent repairs on the interior side of this circuit.

Door I on the interior of the gate-corridor has lost all evidence of jambs (fig. 10). The nearly vertical crack above the door marks the junction between two contemporary towers. Once past the inner door a descending path on the left leads to the area of the lower bailey K. On the right, the path to the main bailey flanks tower E (fig. 12). At the north end of E is the three-storey-high vaulted door. At the lower level some of the exterior facing of this jambless portal was repaired with a reddish stone in the nineteenth or twentieth century. Only one of the blocks of the door's outer arch is still *in situ*. A staircase, of the same width as the door, ascends into the thickness of the tower and abruptly stops at a vertical wall. Directly above the staircase is a bipartite covering. Over the lower half of the stairway at the north there is a barrel vault (fig. 13, right half) which was once braced by wooden cross beams. Fragments of wood are still visible in the square joist holes. Over the southern half of the staircase a vault, now partially collapsed, is set at a level one storey higher than the vault to the north (fig. 13). There is evidence that some sort of hatch was accommodated in the south vault. A wooden ladder probably connected the top of the staircase to the battlements above. Unfortunately, I was not able to explore the top of tower E to determine if any rooms or cisterns were built in its thickness or if any remnants of the original gate complex were still visible.

On the interior of the main bailey much of the inner face of the circuit from B to E was rebuilt with the reddish stone of the third period. Only the outer sides of the two embrasures south of tower D are original (figs. 6, 12). The unusually wide crenellation above the embrasures is quite new. Similar embrasures at point M were widened excessively in the third period of construction to accommodate cannons (fig. 14). In the center of the bailey there is substantial evidence that modern barracks were built (figs. 12, 14; these barracks do not appear on fig. 2). The foundations of these rectangular rooms were leveled five years ago and topped with a thin layer of cement. Most of the circuit walls of this fort have similar cement covers; the cement even extends around the circumference of church A. With the exception of the opening in E, the only other extant chamber at the level of the main bailey is in the south flank of tower B (fig. 14). It is entered through a roundheaded door at point C (fig. 2). A short flight of stairs descends

to a small platform, where one can enter this trapezoidal room at the left. Today this chamber contains the sepulcher of Mişrî Zenûn, a Moslem saint. His enclosure, which has one window opening in the south and two in the west wall, is a post-medieval construction. On the right flank of the platform, a shaft, which is now covered by an iron grate, seems to descend into the thickness of tower B, but it was not possible to survey this passage.

The most significant piece of architecture in this fortress is the hexaconch church atop tower B (fig. 15).²⁶ Today less than one meter of the foundation of this church is standing (A on fig. 2; figs. 16–17). The modern additions to the interior of the structure include a flagpole in the center and at the east a metal tower, which once brought electric power to the garrison inside (figs. 3–4). A second such tower now lies discarded; its frame bent across the south conch (fig. 16). From the present remains we can draw definite conclusions about the design and origin of the church. On the exterior the plan is circular (fig. 17); only at the northeast does the rounded face of the main apse protrude. The church was entered by a single door in the west conch, and in front of this there appears to have been some sort of square porch (fig. 15), whose exact dimensions cannot be determined from the fragmentary remains. In the surviving foundation the location and number of windows and niches are not apparent. Traces of a single step for a bema are visible in the protruding apse at the northeast.

The masonry of this church deserves close scrutiny. Like the fortress, its walls have an inner and outer facing with a poured core of mortar and rubble; but at this point their similarity ends. The interior facing consists of rusticated rectangular stones laid in regular courses and secured by broad bands of mortar (fig. 16). There is abundant evidence that these walls were covered with a thick layer of plaster and painted; only small traces of a

²⁶ Few modern explorers mention the presence of a church in Oltu castle. Koch (*Wanderungen*, II, 251) gives a very brief description of a church and offers a hand-sketched plan. It shows six identical lobes, encased in a hexagonal exterior, and two doors. He mentions the presence of windows. My plan and description differ significantly from Koch's findings, and it is possible that he surveyed a second church, whose remains do not survive in the present fortress. In this century Takaišvili (who is later cited by Beridze) studied a church in the fortress of Oltu. His plan also has a faceted exterior which is not apparent on the surviving structure. We must assume either that what survives atop tower B (fig. 2) served as the foundation for Takaišvili's church or that he made an improved survey of the now vanished second church which Koch tried to describe. Takaišvili's church is discussed in the second paragraph of note 30 below.

blue pigment survive. The poured core consists of unhewn stones which are layered in parallel courses and covered with an unusually generous amount of mortar. What survives of the exterior facing is a smooth, carefully executed ashlar of extremely large dimensions (fig. 17). These blocks, measuring on the average 53 cm in height and 44 cm in width, are laid on their vertical axes and joined so carefully that just the thinnest line of mortar is visible in the margins. Only at the south is the socle for the vertically laid stones visible (fig. 15). At the west this first course of stones is surmounted by what survives of a projecting relief (fig. 17).

This relief provides the most valuable piece of evidence for determining the builder of the church. The decoration probably girdled the entire circumference and from a distance it resembles a large torus. At close range the molding is articulated by a complex strapwork pattern in which each band of repetitive, interlocking circles is made of three strands. At the center of each circle is a single drilled hole. This type of relief was not used as an exterior decoration on Armenian or Byzantine churches in eastern Anatolia, but was extremely common on Georgian churches of the tenth and eleventh centuries,²⁷ and its pattern may have derived from the elaborately woven willow screens of the Caucasus.²⁸ A variant of the pattern appears occasionally on Armenian churches constructed during the period of Georgian domination in the Marchlands.²⁹

Of almost equal importance is the presence of two other Georgian hexaconch churches in the vicinity of Oltu: Gogjuba and Kahmis (or Kiagmis

Olti).³⁰ Both structures are almost identical in size and plan; they differ from Oltu's church only in that their exteriors are not circular, but faceted with deep triangular niches. In the district of Sagaredžo (eastern Georgia) the tenth-century hexaconch church of Cmindia Giorgi may give us some idea of what Oltu's church was like in its completed state.³¹ The church of Cmindia Giorgi stands on a prominent point within the fortress of Bočorma. Like the church in Oltu Kalesi, it was intended to advertise the greatness of its builder.³² In the church of Cmindia Giorgi six pointed arches, which rise from the conches, support a tall drum with a pyramidal roof. Windows pierce the conches as well as the drum.³³ On the exterior at ground level the first course of ashlar is separated from the courses above by a continuous horizontal molding.

In August of 1983 I removed some fragments of mortar and loose stone from the socle at the south flank of the fortress-church in Oltu to reveal a piece of a "bilingual" Greek-Armenian inscription (fig. 15).³⁴ Prior to the destruction of the church, the first course of vertical stones completely covered the fragment. When the inscription was adapted to the foundation as a spoil it was recut through the center of the second register, leaving only the first line of the Greek text intact (fig. 18). Above the first register there is the outline of two concentric

²⁷ Mepisashvili and Tsintsadze, *Arts*, 143 (Kutaisi), 149 (İshhan), 177 (Kvatahevir), 293 (Otsindale); Alpago-Novello, *Art*, pl. 38 (Nikorminda), pl. 308 (Ruisi), pl. 334 (Betania), pl. 412 top (Manglisi); and T. Kluge, *Versuch einer systematischen Darstellung der altgeorgischen (grusinischen) Kirchenbauten* (Diss., Berlin, 1918), 57, 77. Compare M. Gough, "A Church of the Iconoclast (?) Period in Byzantine Isauria," *AnatSt*, 7 (1957), 156 f. notes 7–8. Near identical reliefs occur on Georgian churches as late as the 15th century. Similar (but not identical) interlace-patterns in low relief are evolving on the western borders of Byzantium; see C. Sheppard, "Pre-Romanesque Sculpture: Evidence for the Cultural Evolution of the People of the Dalmatian Coast," *Gesta*, 23.1 (1984), 7–16.

²⁸ Alpago-Novello, *Art*, 156 f. It is similar to the classical guilloche and may have antecedents in 6th-century Syria. Also see D. Ferrero, "Les Ornaments sculptés de la Géorgie et le haut moyen-âge," *Bedi Kartlisa*, 41 (1983), 235 f. and figs. 14–15.

²⁹ N. and M. Thierry, "Notes sur des monuments arméniens en Turquie," *REArm*, n.s. 2 (1965), 174, fig. 2; P. Mijović, "Les Liens artistiques entre l'Arménie, la Géorgie et les pays yougoslaves au moyen âge," *Atti del Primo Simposio Internazionale di Arte Armena*, Bergamo, 1975 (Venice, s.d. [1978]), 487 ff.; and J. Baltrušaitis, *Études sur l'art médiéval en Géorgie et en Arménie* (Paris, 1929), 1–8, 21 ff., cf. pls. 3, 12, 29, and 47 with pl. 17.

³⁰ Alpago-Novello, *Art*, 259; Mepisashvili and Tsintsadze, *Arts*, 109–11; Kluge, *Versuch*, 49; Gutschow, "Kirchen," 241 f.; E. Csemegi-Tompos, "Sixfoil Domed Church Architecture on the Territory of Byzantium," *Primo Simposio Internazionale Sull'arte Georgiana* (Milan, 1977), 90 ff.; E. Takaišvili, "Kristianskie pamjatniki," *Materialy po arxeologii Kavkaza*, 12 (Moscow, 1909), 5 ff.; and P. Cuneo, *L'Architettura della scuola regionale di Ani nell'Armenia medievale* (Rome, 1977), 57.

A hexaconch church of Georgian construction was photographed and surveyed in Oltu. Except for its smaller diameter, it is similar in plan to the structures at Gogjuba and Kahmis. Unfortunately, I was not able to locate this church in 1977 or 1983. See: Zdanévitch, *L'Itinéraire*, 7 (No. 68), 14 f., 22; E. Takaišvili, *Album d'architecture géorgienne* (Tbilisi, 1924); *idem*, *Expédition archéologique en Kola-Oltisi et en Çangli (1907)* (Paris, 1938), 46 ff.; and V. Beridze, *Mesto pamjatnikov Tao-Klardžeti v istorii Gruzinskoj arhitektury* (Tbilisi, 1981), 189 f.

³¹ Mepisashvili and Tsintsadze, *Arts*, 110, 135; Alpago-Novello, *Art*, 300; and G. Čubinašvili, *Arhitektura Kaxeti* (Tbilisi, 1959), 416–21, pls. 323–29.

³² R. Edwards, "Ecclesiastical Architecture in the Fortifications of Armenian Cilicia," *DOP*, 36 (1982), 175; cf. F. Hild, H. and G. Hellenkemper, "Kommagene-Kilikien-Isaurien," *RBK* (1984), 281 ff.

³³ Compare Kamhis in Gutschow, "Kirchen," pl. 42.

³⁴ The numerous inscriptions and reliefs, which Koch sighted on the walls of the fortress in the 19th century (*Wanderungen*, II, 252), are not to be found today. Greek inscriptions at Armenian sites are extremely rare. A badly damaged fragment of a 10th-century (?) Greek inscription is present at Ani; see: K. Basmajian, "Les Inscriptions arméniennes d'Ani," *ROChr*, 22, 3rd ser. 2 (1920–21), 340, 349 fig. 1; and *infra*, note 40.

half circles. The interior of the small inner circle is divided into neat wedges. The wide curving space between the two circles is filled with several neatly aligned letters of the Armenian alphabet. They are arranged so that each letter corresponds to a wedge of the inner circle. From left to right those letters which are clearly recognizable form a series:

Ե Ձ Է Ը

It is likely that a Թ follows the Ը and a Դ precedes the Ե. Each of the Armenian letters has a numerical value: Ե = 5, Ձ = 6, Է = 7, and Ը = 8. It is almost certain that these concentric circles are part of a sundial.³⁵

The Greek letters below in the surviving line of the inscription are fairly distinct and are framed by a neatly incised border:

ΕΓΩΝΑΡCICΟΕΠΙCΚΟΠΙΡ
Ἐγὼ Ναρσίς ὁ ἐπίσκοπος ἸϞ

Since there is no extant record of a bishopric in Oltu, it is possible that the bishop dedicating this inscription is responsible for a district in which Oltu lies or a neighboring region. Unfortunately, the line breaks off precisely where we would expect a toponym: “I, Narsis, the bishop (of) . . .” The penultimate letter is almost certainly an *iōta*, and less likely a *tau*, while the final letter may be a damaged *rho* or *bēta*. From what we know of the official lists, there are no Greek or Armenian bishoprics in northeast Turkey whose names begin with IP. But if the penultimate letter is a *tau*, then the toponym Τρεβιζονδος (Trebizond) is possible, as well as the designation Truc^c, a variant spelling for the city of Kars.³⁶ If the final letter is a *bēta*, then the toponym may be Ἰβ[η]ρίας (Iberia).³⁷ This place name would lead to a most tantalizing association with a famous Anatolian bishop.

In the Byzantine church the name Narses is extremely rare. For the Pontus there is a record of a bishop Narses in the “Ecclesia Cerasuntis.”³⁸ But

³⁵ Compare the sundials at Zvart’noc^c and in the *gavit*^c of the church of St. Grigor at Ketcharis; see: M. Hasratian and A. Alpago-Novello, *Ketcharis*, Documents of Armenian Architecture, 11 (Milan, 1982), 7 f., 18, 24; and J. Strzygowski, *Die Baukunst der Armenier und Europa*, I (Vienna, 1918), 31. Also see: A. Zarian and A. Manoukian, *Haghartzin*, Documents of Armenian Architecture, 13 (Milan, 1984), 28 f.; and *Corpus Inscriptionum Armenicarum*, III, ed. S. Barxudaryan (Erevan, 1967), 43 (No. 105), pl. ix, fig. 30, and 184 (No. 565), pl. lxx, fig. 204.

³⁶ Le Quien, *Oriens Christianus*, I [Graz, 1958], 509–12; and Honigmann, *Ostgrenze*, 217. There appears to be no Greek equivalent of the Armenian name Truc^c.

³⁷ Le Quien, *Oriens*, I, 1333–39; and J. Markwart, “Die Entstehung der armenischer Bistümer,” *OC*, 27 (1932), 152.

³⁸ Le Quien, *Oriens*, I, 513 f.; and V. Laurent, *Corpus des sceaux de l’empire byzantin*, V.1 (Paris, 1963), No. 996.

the spelling and location of this place name are too far removed geographically to be identified with this inscription. However, in Armenian ecclesiastical circles the name Nersēs (Ներսէս) is very common. Since the Georgian church in Oltu castle could have been built between the tenth and the fifteenth centuries, it is difficult to decide which of the many bishops named Nersēs in Armenian sources is involved. The most likely candidate is Nersēs III (the Builder), who resided in the province of Tayk^c as its bishop during the third quarter of the seventh century. In part, his stay in Tayk^c was due to self-imposed exile, which occurred after he was elected to the Kat’olikate. Apparently his support of certain policies made him extremely unpopular among the Armenian nobility. Further, he was under considerable pressure from the Emperor in Constantinople to unify the Greek and Armenian churches.³⁹ The fully Hellenized Nersēs insisted that the ecclesiastical construction which he initiated bear his monogram in Greek. Surviving examples can be found in the roundels on the basket capitals at the Cathedral of St. Ējmiacin (Vaṭar-šapat) and the Church of Zvart’noc^c.⁴⁰ The fact that

³⁹ *Histoire de la Géorgie*, 252; Asoṭik, 63–65, 70–71; Adontz, *Armenia*, 261; and F. Tournebize, *Histoire politique et religieuse de l’Arménie* (Paris, 1910), 97, 150, 352 note 1, 367 note 1. Sebēos in his narrative on Nersēs III (*Histoire*, 136–38) stresses that this native of Tayk^c was so deeply influenced by his Greek education that he adopted the teachings of Chalcedon. Also see: P. Peeters, “À propos de la version arménienne de l’historien Socrate,” *Mélanges Bidez*, II (Brussels, 1934 = *Annuaire de l’Institut de Philologie et d’Histoire Orientales*, II), 666–68, republished in P. Peeters, *Recherches d’histoire et de philologie orientales*, I, *Subsidia Hagiographica*, 27 (Brussels, 1951), 328–30; the problematic translation of Yovhannēs Kat’olikos in the *Histoire d’Arménie par le patriarche Jean VI dit Jean Catholikos*, trans. M. Saint-Martin (Paris, 1841), 69–79; Vardan, vardapet, *La Domination Arabe en Arménie extrait de l’histoire universelle de Vardan*, trans. J. Muyltermans (Paris, 1927), 89; and G. Garitte, *La Narratio de rebus Armeniacis*, *Édition critique et commentaire*, CSCO, 132, *Subsidia* 4 (Louvain, 1952), 46, 339 f.

⁴⁰ J. Strzygowski, *Das Etschmiadzin-Evangeliar* (Vienna, 1891), 9–16; *idem*, *Die Baukunst*, I, 30 f., 110–18; W. Kleinbauer, “Zvart’nots and the Origins of Christian Architecture in Armenia,” *ArtB*, 54 (1972), 245–48; and V. Gardthausen, *Das alte Monogramm* (Leipzig, 1924), 120. In the monograms at both sites the intervening diagonal of the *nu* is bent in a manner similar to that of the *nu* in the Oltu inscription. In the case of the latter (fig. 18) the left vertical stem of the *nu* merges into the small suprascript *ōmega* (Ϟ). At Zvart’noc^c there is a Greek inscription in which the diagonal of the *nu* is not bent and the last vowel of the name N a r s ē s is rendered with an *ēta*: NAPCHC (see F. Macler, *Rapport sur une Mission Scientifique en Arménie russe et en Arménie turque* [Juillet-Octobre 1909] [Paris, 1911 = *Nouvelles Archives des Missions Scientifiques*, XIX, n.s. I.2], 88). At Oltu the presence of an *iōta* in this ultimate position is quite normal. The interchange –ι– / –η– (such itacisms are extremely common after the Roman period; see F. Gignac, *A Grammar of the Greek Papyri of the Roman and Byzantine Periods*, I [Milan, 1976], 235 ff.) can

Nersēs is from Tayk^ς may help to explain the cryptic toponym of the Oltu inscription. While the Armenian Tayk^ς can be rendered in Greek as Ταῖς, Τάοχοι, and Τάοι, it is also common to have (Ἐνδοτέρω) Ἰβηρία.⁴¹ That Nersēs appears as ἐπισκοπ(ος) on this inscription must indicate that it was executed prior to his ascension to the Kat'olikate or during the period of his exile. The reason this epigraph was commissioned is unknown. Considering the present location of the inscriptional fragment, it is possible to infer that the fortress existed in Oltu by the seventh century. Nersēs was obviously seeking a safe haven, especially on the eve of an Arab invasion.

The careful integration of the sundial into the upper border of the Greek inscription indicates that the entire epigraph was designed and executed at one time (fig. 18). It bespeaks close cooperation (or at least the desire for it) between certain Armenians and Greeks. If the epigraph was executed after the eighth century, this cooperation may have been political in nature, for it is quite possible that the Armenian princes encouraged a Byzantine alliance to prevent Georgian domination of the region.⁴² That the epigraph was later used so disdainfully as a foundation for a Georgian church may be an indication of the Iberian attitude toward this détente. The local Armenian peasants prob-

ably cooperated with the side that had the upper hand. Certainly, King Gēorgi was careful in 1022 that no harm should come to the civilians of Oltu, many of whom undoubtedly were Armenians.⁴³

Cücürüs Köy

The village of Cücürüs can easily be reached by taxi from Oltu.⁴⁴ Within the territorial limits of the village there are two medieval structures. The first, located about one kilometer southwest of the settlement, is the aisleless chapel Cücürüs 1 (fig. 19). A small church, near the center of the village, appears on my plan as Cücürüs 2 (fig. 19).

Cücürüs 1

This chapel stands isolated on a small rocky mound. There is a faint trace of a retaining wall about 3.5 m east of Cücürüs 1 (fig. 19). The chapel consists of a simple apse and nave which are flanked by a small apsidiole at the south. Today only a few fragments of this side apse survive (figs. 20, 22). The chapel is in a better state of preservation. Although the barrel vault over the nave and two-thirds of the apsidal semidome have collapsed, fragments of a gabled roof are still visible (fig. 21). There are large breaches in both the north and south walls.

The masonry of Cücürüs 1 is fairly consistent. On the exterior square and rectangular facing stones, varying greatly in quality, are arranged in neat courses (figs. 20–21). Only at the west and east do the margins of mortar extrude. The interior facing is quite similar (fig. 23), except that the margins are covered by a thick layer of mortar. There is no evidence that the walls were stuccoed. The stones of the semidome have less mortar and more rock chips in their interstices (fig. 22). The core of the wall, consisting of mortar and uncoursed stones,

hardly be traced to the Armenian pattern *իւրփա* (for / ē/, see, e.g., A. Meillet, *Esquisse d'une grammaire comparée de l'Arménien classique*, 2nd ed. [Vienna, 1936], 44 f.). Actually, it may reflect a Greek pronunciation [Narsis] and suggests, perhaps, the Byzantine origin of the carver. Outside of the epigraphic tradition, the Greeks are by no means consistent in their rendering of Nersēs; see Garitte, *Narratio*, 363–67, 405, 432.

⁴¹ Hübschmann, *Ortsnamen*, 277; Honigsmann, *Ostgrenze*, 159–61, 218–22; and see *supra*, note 12. Compare: N. Oikonomides, "The Chancery of the Grand Komnenoi: Imperial Tradition and Political Reality," *Archeion Pontou*, 35 (1978), 327–29; and M. Kuršanskis, "L'Empire de Trébizonde et la Géorgie," *REB*, 35 (1977), 248–54.

⁴² If this church were erected in or after the third quarter of the 12th century, during one of the prolonged but poorly documented periods of Georgian occupation, then it is *remotely* possible that the Nersēs of the inscription is Nersēs IV Klayec'i (or Šnorhali). Prior to his consecration as Kat'olikos in 1166, Nersēs probably held the title of bishop. More than any other Armenian cleric he is associated with the negotiations for the unification of the Greek and Armenian churches. In the Armenian Synaxarium Nersēs' talent and versatility as a poet are emphasized as well as his playful infatuation with the letters of the Armenian alphabet. Further, if a Greek executed this inscription (cf. note 40), the last two letters may be a crude attempt to render the Armenian name Hfovmklay, which was the residence of Nersēs after 1150. See: P. Ananian, "Narsete IV," *Bibliotheca Sanctorum*, 9 (1967), 746–59; A. Sanjian, *Colophons of Armenian Manuscripts, 1301–1480* (Cambridge, Mass., 1969), 362; and G. Bayan, ed. and trans., *Le Synaxaire Arménien de Ter Israel*, PO, v. 3 (Paris, 1910), 367.

⁴³ The medieval residents of the Oltu-Penek valley were accustomed to being pawns in the struggle between the Georgian and Armenian princes. See J. Laurent, *L'Arménie entre Byzance et l'Islam* (Paris, 1919), 12, 21 f., 29 notes 1 and 2, 208 note 3. It was not until the mid-11th century that a civilian Greek population was settled, briefly, in this area. See: S. Vryonis, "The Will of a Provincial Magnate, Eustathius Boilas (1059)," *DOP*, 11 (1957), 274–77; Ch. Badridzé, "Deux études pour servir à l'histoire du Tao," *Bedi Kartlisa*, 31 (1973), 167–86; and H. Bart'ikyan, "Significance of the Will of Eustathius Boilas (1059) for the Study of the History of Armenia and Georgia at the Time of Byzantine Domination (Eleventh Century)," *Papers Presented to the XXV International Congress of Orientalists* (Moscow, 1960), 1–18.

⁴⁴ Cücürüs Köy appears on the Deutsche Heereskarte, Blatt-Nr. C-XV, Oltu, 1941. There is no critical, published account of the church or the chapel at Cücürüs; refer to the publications in the second paragraph of note 30 *supra*.

is poured at each course level. Today the only blocks of finely cut ashlar in this chapel frame the apsidal window.

In respect to Armenian and Georgian ecclesiastical architecture, this window is both typical and unusual. It is typical because of the rounded soffit, splayed sides, and sill which inclines toward the interior. It is unique in that almost half the volume of the window protrudes into the space of the semidome. Perhaps an especially high bema forced the elevation of the window; regrettably, any evidence of a bema is now buried in the debris. The only apsidal niche, a small square compartment, is located at the north. The breach in the northeast corner of the nave has destroyed any possible evidence of a niche there (fig. 21). The nave was articulated by a single transverse arch, which once supported a slightly pointed barrel vault. The transverse arch was anchored on pilasters in the north and south walls, and fragments of the north pilaster still survive (fig. 23). The only possible location for a door into the nave is the center of the south wall. Little can be said about the nature of the flanking apsidiole at the south since so little survives. Its masonry and core appear to be the same as that used in the chapel. The north wall of the apsidiole (i.e., the exterior southeast corner of the chapel; fig. 20) is covered with a thick layer of stucco; traces of blue pigment still survive on its surface. There are neither inscriptions nor historical names which can be associated with this site. It is impossible to determine whether Armenians or Georgians are responsible for the construction. The architectural features which have survived on this chapel are common to both cultures.⁴⁵ Quite likely Cücürüs 1 was part of a small cloister.

Cücürüs 2

The substantial remains of a rectangular church stand at the side of the main road in Cücürüs Köy. Except for a breach at the south, the four walls are standing almost to the level of the cornice. The chevet of the church has an apse and flanking chapels (fig. 19). The symmetrical arrangement of

a single window in each unit is evident on the exterior (fig. 24).

The masonry of this church consists of several distinct types. Each of the three roundheaded windows in the chevet is formed by four large ashlar blocks. The two lateral blocks are tapered to form the typical splayed opening. The exterior facing of the chevet is characterized by quoins of fine ashlar in both corners. The intervening wall has facing stones of three different types. At the lowest level is a socle of large, roughly cut rectangular and polygonal stones. An abundance of rock chips and occasional patches of mortar seal this masonry. Upon this irregular socle, which consists of two or three courses of stone, rise regular courses of rectangular blocks. They are sealed on the exterior with broad bands of mortar. This second type of masonry continues past the level of the windows and is surmounted by a facing which has almost no mortar in the interstices. The stones of this upper level are anchored by numerous rock chips in the margins and are not backed by the thickly poured core of the masonry below. Judging from the consistency of the cores, the lower two types of masonry and the quoins represent the first building period. The upper level masonry is a repair. This same pattern of facing stones is visible on the other sides of the church (figs. 25–26). In the south wall the area of repair is considerable at the east; the irregular level of damage is probably the result of an earthquake.

Of the three shattered openings in the south wall only the one in the center appears to have been a door (fig. 26). The lateral two openings were broadly splayed windows; the westernmost was blocked with loose stones when part of the nave was converted into a house. The only entrance into this house is a wooden door at the west (fig. 25), which occupies nearly 80 percent of the space of the original west opening. The medieval door was once covered by a rounded arch; its springing stones of ashlar are still *in situ*. The broadly splayed windows—one on each side of the west portal—have modern frames of wood. These openings are also part of the original construction. A plaque above the door indicates that the western third of the nave was converted into a residence in 1966. This modern construction of stone and wood may have covered evidence of a narthex. From the present remains it is impossible to determine any of the supports or divisions in the nave. A flat roof of timber covers the house; the rest of the nave is without covering.

⁴⁵ Chapel plans similar to Cücürüs 1 have been located near the Oltu region; see: R. Šmerling and N. Čubinašvili, "Xramy v drevnix selenijax Trialeti-Oltisi i Tetrickaro," *Ars Georgica*, 2 (1948), 48–64; Mepisashvili and Tsintsadze, *Arts (supra*, note 22), 118; and P. Cuneo, *The Basilicae of T'ux, Xncorgin, Pasvack', Hogeac'vank'*, Studies on Medieval Armenian Architecture, 4 (Rome, 1973), figs. 3, 29.

The lower wall, which runs southwest from the northwest corner of the nave, is a modern construction and does not appear on the plan (fig. 19). The three openings in the north wall all have the raised sills of windows. The central and east windows show traces of broadly splayed frames; the west window in the north wall is neatly filled with loose rubble like its counterpart in the south wall.

On the interior the facing is similar to the exterior, except that a thick layer of plaster once covered the walls (fig. 27). Traces of yellow, orange, and blue pigment are still visible. Smooth ashlar blocks are used for quoins at the junction of the apse and chapels. The roundheaded door of the south chapel is formed by neat voussoirs, while its counterpart at the north appears to have been repaired and covered by a more depressed soffit (fig. 28). The niches too are framed with ashlar.

In Cücürüs 2 the central apse has one niche and the nave has two (fig. 19). The north niche in the nave is roundheaded and has a small square socket near the base. One curious feature is the single horizontal block set above the roundheaded hood (fig. 28). The block extends slightly beyond the width of the niche and extrudes from the wall by only 7 cm. A similar block is positioned over the roundheaded niche in the north flank of the apse. The squareheaded niche in the southeast corner of the nave is without adornment (fig. 27).

The two chapels flanking the apse are without decoration. Each is covered by a barrel vault and each has an embrasured window at the east. The east end of each chapel is not apsidal but flat.

The nature of the covering over the nave is unknown. Part of the large quantity of rubble on the interior of the nave certainly came from the collapse of the semidome and the upper portions of the flanking chapels. It is possible that the rest is a result of the destruction of stone vaults or supporting structures. Since the salients created by the abutment of the apse and flanking chapels show no signs of having functioned as pilasters, it seems unlikely that two arcades formed the nave and flanking aisles of a hall church. In such a construction the piers of the arcades would support three longitudinal vaults and the east end of each arcade would probably attach to one of the apsidal salients. The most likely method for supporting a stone roof in Cücürüs 2 would have been a square bay of four equidistant piers upon which a drum and cupola would have rested. A long barrel vault joining each flank of the bay to the corresponding

wall of the church would have completed the covering. It is also possible that a truss roof of wood covered the nave. In that case the rubble in the west half of the nave may have been deposited recently when the residence was built.

From the present remains it is impossible to determine whether Georgians or Armenians are responsible for this undocumented church. Only the excavator's shovel can determine the origins of Cücürüs 1 and 2.

Cücürüs Kalesi

Near the southwest end of the Oltu-Penek valley the small garrison fort of Cücürüs guards a strategic defile through which the Taoskari-İşhan trail passes.⁴⁶ Today there is a paved road from Oltu to the village of Cücürüs; the trail north from Cücürüs to the fort is passable only with pack animals or on foot. The fortress crowns a small outcrop on the east flank of the defile (fig. 29). The only year-round source of water in this semiarid region is an occasional artesian well. A rather sizable *yayla* is located a few kilometers north of the fortress in a region called Zitavur Gedigi. The easiest ascent to the summit of the fortress outcrop is on the southwest flank. A footpath meanders to the north and then abruptly ascends and turns to the west. Here the medieval visitor came under the close scrutiny of archers on the massive north tower (fig. 31). The trail continues to the south along the east flank of the fort and terminates near the south gate (fig. 32).

In plan Cücürüs Kalesi is very simple (fig. 30). The circuit follows the irregular shape of the relatively flat summit. The only fully rounded tower is at the north (fig. 31); four other salients bulge from the curving face of the circuit. The towers are conveniently anchored on rocky projections (figs. 32–33). Today there is no evidence of crenellations on the walls. The north tower rises to 8 m in height; the rest of the circuit varies from 3 m to 7 m in height. The poured core of the masonry is consistent throughout, revealing that the fortress is the result of one period of construction. The stones of the interior facing are roughly coursed blocks laid, occasionally, in regular courses. For the most part the broad margins of mortar do not extrude to cover the face. Only on the south wall of the north tower are there traces of stucco over the

⁴⁶There is no published account of this fortress; it appears as Harapkale on the Deutsche Heereskarte, Blatt-Nr. C-XV, Oltu, 1941.

facing. The exterior facing is almost identical to the interior. Neither the two southern salients nor the gate itself have a heavily stuccoed face (fig. 32). On the rest of the circuit, however, the exterior coating of mortar is so thick that only traces of the facing stones are visible (figs. 31, 33). In general the facing is similar to that seen at Kız (near Olan).

The south gate, the only entrance into the fort, is situated at the steepest point on the outcrop (fig. 32). From the outside the gate is formed by what appears to be two massive square pilasters. The corners barely protrude from the surface of the circuit, which is otherwise characterized by a curving face and battered walls. Today there is no evidence of a crossbar bolt or other locking devices for the door. Near the base of each jamb is a narrow podium. Some sort of vault, now missing, once covered the door. As at Kız, a retractable wooden ladder was needed to gain access. The builders of Cücürüs Kalesi did not need to construct a complex entrance since the precipitous cliffs immediately below the door were more than sufficient to slow an enemy attack.

On the interior of the fort it appears that the ground level has risen substantially. Near the west central tower is an opening to a large chamber, but because this room was almost completely covered and filled with debris, it could not be surveyed. Quite likely it functioned as a cistern, for if the small garrison here was expected to withstand even a short-term siege, water storage would have been essential. Scattered piles of rubble on the interior may be an indication of buried walls; any wooden construction would have disappeared long ago. Entrance to the large north tower was gained through a window/door in the south wall. The sill of this opening is about two meters from the present ground level. Joist holes on the interior of the tower indicate that a wooden floor separated two levels. Judging from its architectural features, the fortress is probably Armenian.⁴⁷

Körolu

Körolu Kalesi is a small garrison fort situated in the southwest flank of the Oltu-Penek valley.⁴⁸ It can easily be reached by driving northwest from the village of Siksor through what is now one of the last surviving groves of native pine trees. The

fortress crowns a needle-like outcrop on the south-east flank of the road (fig. 34) and has a commanding view into the adjacent valleys. The road, a comfortable trail of packed gravel, continues to the northwest where it joins the route to Taoskari and Işhan. Körolu Kalesi, like its neighbor to the south, guards half of a fork in the Oltu-Işhan trail.

An ascent up the steep sides of the outcrop is made with great difficulty. The north flank of the outcrop seems the one practical approach. The only entrance into the fortress is through the door in the northwest salient (figs. 35–36). The plan of the fortress is characterized by the rounded curving faces of the circuit. Unlike the relatively flat summit of Cücürüs Kalesi, the circuit walls here are forced to follow the jagged and irregular contours of the abruptly falling cliffs. The site is the most severely damaged fort which I have surveyed in the Marchlands. With the exception of the north flank, which stands about 3 m high, the circuit survives only to its foundation.

The masonry here is very similar to the type seen at Kız (near Olan). For the most part it consists of large crudely cut rectangular stones laid in irregular courses. On the exterior rock chips and mortar fill the interstices, and the entire face is covered with a thick layer of stucco (fig. 36). On the interior the facing is without this covering of mortar and the margins, which are clearly visible (fig. 37), have fewer rock chips. On the average the core of the wall is 65 cm in width and is filled with mortar and uncoursed stones.

Most of the frame for the gate is missing (fig. 36), but a horizontal plank of wood still survives above the west jamb. The wood probably functioned as some sort of springing or support for the vaulted covering of the door. The plank must have extended across the opening as a transom, since there is a gap of corresponding size above the east jamb. A finely carved block of ashlar, still *in situ*, now defines the upper face of this gap. On the interior there is evidence that the gate was incorporated into the tower-room as part of a bent entrance (fig. 37). A partially collapsed wall extends south from the east jamb of the door and probably joined the curving inner face of the salient. At some point a second door, now missing, was positioned in the southeast or southwest flank of this enclosure, forcing those entering to make a 90° turn. Unfortunately, this bent entrance has collapsed and is now buried in the dirt and debris, which are shifting north from the summit. On the interior of the north wall at the east small round joist holes

⁴⁷ See *supra*, notes 21 and 22.

⁴⁸ This hitherto unexplored fortress appears as one of the ubiquitous "Harapkales" on the Deutsche Heereskarte, Blatt-Nr. C-XV, Oltu, 1941.

are still visible. One of the holes still retains a substantial fragment of wood. The local pine forests obviously provided materials for the internal buildings. There is no evidence of battlements on the north wall.

The only substantial piece of surviving masonry outside of the north front is the east wall of the circular cistern, which is located approximately 8 m south of the north gate. Masonry supplements the partially scarped walls of this cistern, and these walls, including surviving fragments of a vaulted ceiling, are covered with a thick layer of stucco. The plan of this fortress indicates that it is an Armenian construction.

Penek

The church at Penek (Georgian: Bana; Armenian: Banak) is one of the most impressive pieces of Georgian architecture built in the medieval period.⁴⁹ It was constructed during the reign of Adarnase IV (888–923), the Bagratid prince who strengthened the Iberian monarchy.⁵⁰ The first bishop of Bana was Kirike.⁵¹ Succeeding bishops

⁴⁹My intention is to describe the church as it stood at the beginning of the fourth quarter of the 20th century. During the last 130 years numerous plans and descriptions of Penek have been published. All of these accounts have incorrectly stressed the balanced and symmetrical nature of the church's plan. The first study, which was undertaken by Koch, is merely a brief description in a general travelogue of the eastern Pontos. Unfortunately, Koch's narrative of the church is the only one made prior to its destruction. In all of the succeeding plans and descriptions commentators have hypothesized what the church should have looked like in its complete state. Rather than simply add another variation, I have decided to present my plan minus any speculative additions (fig. 38). My survey was executed entirely with a calibrated transit in the field, without referring to any earlier drawings. In the course of my narrative I shall cite these previously published accounts.

I shall not comment on the question of just how indebted the Georgian architects of Bana were to earlier Armenian inspiration (i.e., the large rotundal church at Zvart'noc'). There is absolutely no reliable evidence to prove that this is an Armenian church built in the mid-7th century by Nersēs III; cf. H. Kasangian, "Contributi al problema di Zvartnotz," *Atti del Primo Simposio Internazionale di Arte Armena*, Bergamo, 1975 (Venice, s.d. [1978]), 979 ff.; U. Bock, *Armenische Baukunst* (Köln, 1983), 125–29, 203; T. Marut'yan, *Hay čartarapetut'yan hušarjanner* (Erevan, 1978), 34 ff.; and *idem*, *Tayk'i čartarapetakan hušarjannerə* (Erevan, 1972), 35–88. The only project to build a church similar to Zvart'noc' during the lifetime of Nersēs never went beyond the planning stage; see Movsēs Kaňankatwac'i, *The History of the Caucasian Albanians*, trans. C. Dowsett (London, 1961), 207. A definitive evaluation of Bana can be undertaken only when excavations are completed.

⁵⁰Toumanoff, *Studies* (*supra*, note 7), 492; P. Tarchnišvili, *Geschichte der kirchlichen georgischen Literatur*, ST, 185 (Vatican City, 1955), 67; and Tašean, *Tayk'* (*supra*, note 10), 200, 204, 210–15, 223–27.

⁵¹*Histoire de la Géorgie* (*supra*, note 4), 273, 283.

acted as ambassadors for the Georgian sovereign and as co-administrators of the province of Tao, whose cultural center was Bana.⁵² This church contained a royal sepulcher⁵³ and was the seat of a bishop until the eighteenth century.⁵⁴ In the mid-thirteenth century Bana may have sustained considerable damage from a series of Turkish attacks.⁵⁵ During the Russian-Turkish wars of 1855 and 1877 the church was destroyed in an exchange of cannon fire.⁵⁶ A comparison of the pre-1920 photographs of this site with the present remains shows that the edifice has deteriorated in the last sixty years. The sloping sides of the hill below the church are covered with fallen masonry and occasional sections of standing walls. In the medieval period some sort of circuit surrounded the base of the hill.

Penek Kilise is a massive tetraconch encircled by a continuous ambulatory (fig. 38). On the exterior its slightly faceted wall is circular in appearance (figs. 39–40). The original interior plan had four large apses which were oriented roughly to the cardinal points of the compass and joined by four massive piers. Each pier extended the salient ends of two adjacent apses to form a right angle. The outer face of each pier was curved to complete the circular inner wall of the ambulatory. Including the semi-dome, each apse was five storeys in height. Four pendentives (or perhaps squinches) rose from the crowns of the piers along the edges of the semi-domes to form the abutment for a higher level cupola, which covered the square central bay. Unfortunately, most of this edifice has collapsed. Only the east apse is standing today, along with the east portions of the two adjoining piers (figs. 38, 51–52). There is no trace of the other three apses or of the two western piers in the mounds of debris. Sixty percent of the outer wall of the ambulatory survives, although only fragments of this wall rise above the level of the third storey (fig. 39).

A close examination of this outer shell reveals much about the development of the church. The inner wall of the ambulatory was joined to the outer by a continuous barrel vault (figs. 46, 49, 52). This slightly depressed vault was built with slabs of stone laid radially. The interior face of the outer shell consists of a continuous arcade of roundheaded

⁵²*Ibid.*, 310 f., 346, 532 f.; and Tarchnišvili, *Geschichte*, 183.

⁵³Wakhoucht, *Description* (*supra*, note 4), 119.

⁵⁴Gutschow, "Kirchen" (*supra*, note 2), 240; Thierry, "Notes" (*supra*, note 29), 12; and Beridze, *Mesto* (*supra*, note 30), 137.

⁵⁵*Histoire de la Géorgie*, 532 ff.

⁵⁶Strzygowski, *Baukunst* (*supra*, note 35), 121; and Gutschow, "Kirchen," 241.

relieving arches in the thickness of the wall (figs. 45–46). The resulting series of pilasters extrude over 1.7 m from the surface of the wall (fig. 38, in solid black); I shall discuss momentarily why most of the arcade was later filled in with crude masonry. The first major period of construction, which resulted in the erection of the entire church, is characterized by the use of a uniformly smooth ashlar and a poured core. Occasionally, the inner faces of these blocks are tapered slightly to bind with the core (fig. 47, left). The core consists of a very uniform matrix of limestone mortar which is mixed infrequently with small stones. The blocks are so perfectly fitted that there is no evidence of mortar in the margins. Of the twenty-one surviving pilasters, all but seven have a square salient end (figs. 45–46). Pilasters 12–18 (figs. 38, 48) behind the east apse terminate with a round half column.

Two doors are still visible in the outer wall at the south and west (figs. 45–46). The south door, which is between pilasters 10 and 11, is the best preserved (fig. 47, bottom). This portal is of about one-half the width of the relieving arch above and is set below the present ground level. Only its rounded head and monolithic tympanum are visible today. The relieving arch over this door is substantially wider than the adjoining arches of the arcade, but it is set at the same height (fig. 46). The only distinctive features in this relieving arch are the imposts, which are placed one course-level below their flanking counterparts. This feature, combined with the increased width of the relieving arch, interrupts the monotony of the arcade and readily identifies the location of the door. In order to emphasize the height of the pilasters every impost is continued as a molding into the sides of the relieving arch, but not across its inner face (fig. 47). The transition from the lower imposts in the relieving arch over the door to the higher ones in the adjoining arches is accomplished by means of a single block which elevates the springing of each adjoining arch and its impost course in a rather clumsy manner.

The west door was positioned between pilasters 3 and 4 (fig. 45). There is no trace of this opening today. The entire outer wall of the surmounting relieving arch has completely collapsed.⁵⁷ This arch, like its counterpart at the south, is wider than the adjoining arches and has imposts at a lower level. However, it displays two important differences. First,

it is slightly lower than the other arches of the arcade; and second, the transition from the lower to a higher impost is accomplished in a way that differs greatly from that of the south door. At the west the impost block is carefully executed so that one half extends appreciably above the other (fig. 44), thus avoiding the clumsy transition which we see at the south (cf. fig. 47).

The differences in the style and execution of the pilasters indicate that the first period of construction had at least three phases. Because most of the compartments between the relieving arches were filled in during the second period of construction and because so much of this church is buried in rubble, I could not determine with certainty the relative chronology of the three phases. Phase one seems to extend counterclockwise from the north flank of pilaster 18 to the north flank of pilaster 4. In this phase the square pilasters are topped by an impost block in which the protruding upper level molding constitutes only one-third of the total height of the block (figs. 44–45, 49). Below the protruding element is a flattened congé. The second phase extends from the south flank of pilaster 4 to include all of pilaster 11 (figs. 45–47). Here the pilasters and imposts are identical to those in phase one, except that the protruding element constitutes sixty percent of the height of the block. The only anomaly occurs on the west flank of pilaster 11, where the protruding element is identical in size to the impost of phase one (fig. 47). The third phase includes pilasters 12 through 18 (figs. 46, 48–49). Each of the seven pilasters terminates in an attached column, which is topped by a torus and a square protruding molding. Considering that all the arches and walls of the arcade are constructed in a fairly uniform pattern with an identical masonry, the three phases of the first period of construction quickly follow one another.

After the initial construction this church was so severely damaged (perhaps by the thirteenth-century Turkish raids or an earthquake) that a second major period of construction was necessary. All of the enclosures created by the relieving arches, except those positioned over doors, were carefully filled with masonry to reinforce the walls (figs. 38, 45–49).⁵⁸ This masonry consists of roughly cut ashlar bound to a poured core. Broad margins of mortar help to anchor the facing stones. The core

⁵⁷ The outer walls between pilasters 1 and 3 have also collapsed. Similar sections between pilasters 11 and 12 (figs. 39–40, 46) and 18 through 21 are badly damaged (fig. 43).

⁵⁸ Because of present severe damage, I could not determine if the relieving arch between pilasters 2 and 3 was once blocked with the masonry of the second period.

consists of limestone mortar which is mixed with an almost equal ratio of rocks. It is layered in neat courses and differs dramatically from the core in the first period of construction.⁵⁹

On the exterior of the outer ambulatory wall there is also evidence for two major periods of construction. In the first period each enclosure of the interior arcade, which did not have a door, was opened by a roundheaded window in the center. These windows also defined the middle of each decorative unit on the exterior (figs. 39–40). The vertical margins of every unit were delineated by two adjacent colonnettes which supported the adjoining arches of a blind arcade (figs. 41–42). This decoration imitated in a more delicate and reduced manner the supporting structures on the interior. The twin colonnettes masked the exposed corners of each facet to soften the façade. Although the exterior facing of the first period has weathered extensively, it is identical to that used on the interior. There is no evidence of mortar in the carefully cut margins; some of these ashlar blocks are actually keyed into position (fig. 42). Traces of a few decorative corbels are still visible. It is *only* at the northeast that fragments of relief decoration survive in the spandrels of the blind arcade between pilasters 18 and 20 (fig. 43). Fortunately, enough of the relief survives to allow us to reconstruct the overall pattern.⁶⁰ Near the lower apex of the spandrel is a diamond-shaped figure which was formed by the fused bases and crossing shafts of two pomegranate branches. Two pomegranates flank the diamond and a third surmounts it in the upper register of the spandrel. The rest of the upper register is filled with bunches of grapes and grape leaves, separated by curving vines. In the other areas where the exterior facing survives (i.e., from pilasters 4 to 17) it is clear that the spandrels were never decorated with reliefs (figs. 41–42). Equally significant is the fact that the blind arches below the reliefs are articulated by a cavetto and a torus (fig. 43). The arches in the rest of the arcade simply consist of two flat courses of stone. It is apparent that the articulated arches with reliefs correspond to the first phase in the placement of the

pilasters.⁶¹ However, the exteriors which correspond to the second and third phases in the placement of pilasters are identical to each other (figs. 41–42). This led me to hypothesize that the first phase was actually the very beginning of the first period of construction.⁶² It may represent a time when financial resources were unlimited and thus the investment in costly decoration was warranted. Monetary problems and succeeding bishops caused a brief hiatus in the work which resulted in the inconsistencies of the ambulatory wall.

The masonry of the second period of construction is plainly evident on the exterior of the outer wall. When the enclosures of the wall were filled, the windows were completely blocked. On the outside an attempt was made to seal the windows neatly with ashlar for aesthetic effect (fig. 42), but in some cases cruder stones were used (fig. 41). During the first period of construction some sort of room (perhaps an atrium) was attached to the south entrance (fig. 38); a wall of fine ashlar is still evident on its west side (fig. 41). The core of this wall is identical to that of the first period masonry. This south appendage was completely rebuilt during the second period of construction. Today the entire eastern half of this room has collapsed along with its covering (fig. 40). The diameter of its salient corner at the southwest contracts toward the top in a manner reminiscent of the towers on Georgian fortifications (fig. 41).⁶³ Perhaps the most visible addition from the second period of construction is the massive square buttress which is attached to the outer wall between pilasters 17 and 18 (figs. 39–40).⁶⁴ Its battered walls of crude masonry are anchored by quoins on the exterior. This buttress is not built into the wall, but simply attached to it (fig. 43, far left). On earlier plans it is assumed that a chapel or other rooms occupied the interior of this east buttress.⁶⁵ However, the first two storeys of the buttress seem to be solid. On my plan (fig. 38) I

⁵⁹ In figure 43 the core near the exterior of the wall is from the first period.

⁶⁰ A few pre-1920 photographs show the various elements of the relief clearly; see Mepisashvili and Tsintsadze, *Arts*, 95.

⁶¹ *Ibid.* In one photo the wall between pilasters 21 and 22 is visible and shows that the relief and articulated arches continued beyond the present wall. It is impossible today to determine if the decoration was carried to the north flank of pilaster 4.

⁶² On the west flank of pilaster 11 the appearance of a type of impost which characterizes the first phase of construction is probably an indication that an unused element was put to good use in a later phase of construction. Unfortunately, it does not prove that the phase which I call the “second” actually preceded the “third.”

⁶³ See *supra*, note 22.

⁶⁴ According to Koch's plan (*Wanderungen*, II [*supra*, note 4], 244) this is the only appendage built on the exterior of the church.

⁶⁵ Mepisashvili and Tsintsadze, *Arts*, 94; N. Severov, *Pamjatniki gruzinskogo zодčestva* (Moscow, 1947), 189; V. Beridze, *Drevnegruzinskaja arhitektura* (Tbilisi, 1974), 111; *idem*, *Mesto*, 136–38; and Koch, *Wanderungen*, II, 244 f. The latter assumes that the buttress contained the most sacred precinct in the church.

have hypothesized that a window existed between 17 and 18.

The catastrophe which necessitated the placement of the buttress also brought about the reconstruction of the entire wall above the present level of ashlar (figs. 39–40). The highest course of ashlar on the exterior is parallel to the springing level of the ambulatory vault on the interior. Only the collapse of this vault would have reduced the outer ashlar wall to this height. Evidence for this is apparent on the interior where areas of fine ashlar springing still survive (fig. 45).⁶⁶ Judging from rather clear photographs that were taken before the 1920s,⁶⁷ the second period of construction continued the outer wall to a height greater than that of the present wall. This means that the modern hypotheses on the church, which show the lower level of a three-tiered roof covering a single storey ambulatory vault, are incorrect after the second period of construction.⁶⁸ In reality there was a two-tiered roof: one roof covered the central cupola and a second circular roof sloped over the apsidal semidomes of the conches until it met the outer wall. It is likely that an upper-level ambulatory was positioned between this roof and the ceiling of the ground-level ambulatory.⁶⁹ However, the surviving apse at the east, which dates from the first period of construction, contains three windows in the fourth storey (fig. 51). Since there is no evidence of openings in the outer wall, the apsidal windows could admit no light after reconstruction took place. It is quite probable that after the first period of construction the church had a three-tiered roof, which would have allowed full ventilation and light through the apsidal windows (fig. 39).

Although the outer wall of the ambulatory appears to be a fairly exact circle, it possesses certain asymmetrical qualities. We know from Koch's study of the undamaged church that the ambulatory was entered from the outside by a single door at the north, west, and south. If one were to draw a line through my plan (fig. 38) so as to bisect the circle at the center of the east apse, then it becomes clear that the west door is not positioned opposite the

apse, but slightly to the south. Likewise, the south door is oriented to the east. Considering that the south half of the bisected circle has fifteen pilasters and that the single north door (now missing) was probably the same size as the south or west door, the north half must have had at least fifteen and possibly sixteen pilasters.⁷⁰ Only excavations can determine whether the north door was on axis with the corresponding conch.

Today the east apsidal conch survives to the level of its shattered semidome (fig. 51). With only a few exceptions the masonry of the entire apse complex dates to the first period of construction. The most prominent elements of second period construction are the two lower-level walls which cross the width of the ambulatory to brace the exterior of the apse (fig. 48). These walls are not in alignment with the center of the apse and they prevent passage through the ambulatory.⁷¹ They are intended, along with the external buttress, to reinforce a weak foundation. The stability of the apse itself must have been in doubt for the interproximal spaces of the main-level colonnade were completely filled in (figs. 51, 54–55). Only at the north does the masonry fail to cover completely the posterior sides of columns A and B (figs. 38, 48).⁷²

Debris from the collapsed roof and supporting structures has completely filled the lower level of the apse on the interior (figs. 51–52; cf. fig. 48). In its predestroyed state the main-level colonnade constituted the second storey of the apse. There are indications near the lower-level side chapels (fig. 38) that a natural rock shelf slopes up gently to the center of the church; it is possible that steps (now buried) at the west gave access to the lower level of the east apse. Above the apsidal colonnade a solid third-level wall supports a fourth level in which

⁶⁶Occasional joist holes in the spandrels of the interior arcade may be an indication that wooden crossbeams were left *in situ* after the first period of construction (fig. 45).

⁶⁷Mepisashvili and Tsintsadze, *Arts*, 95.

⁶⁸*Ibid.*, 94.

⁶⁹Kluge, *Versuch* (supra, note 27), 49; cf. Kleinbauer, "Zvart'nots" (supra, note 40), 251–53. The "ground-level" ambulatory is actually two and a half storeys high.

⁷⁰The previous plans of this site depict a total of 28 pilasters which are systematically grouped in units of 7 (between doors) on a perfect axial alignment. See: Kluge, *Versuch*, 66; Mepisashvili and Tsintsadze, *Arts* (supra, note 22), 94; Strzygowski (relying on T'oramanyan's plan), *Baukunst* (supra, note 35), 121 f.; Severov, *Pamjatniki*, 189; Gutschow, "Kirchen," 240; Alpago-Novello, *Art* (supra, note 22), 260; Beridze, *Drevnegruzinskaja*, 111; Koch, *Wanderungen*, II, 244; Kalgin's improvement on the 1902 plan by Kldiašvili in Takaišvili, "Xristianskie" (supra, note 30), 88 ff.; Čubinašvili, *Arxitektura* (supra, note 31); and S. Mnac'akanyan, *Zvartnoc* (Moscow, 1971), 65 ff. Koch, who does not show the arcade of the ambulatory on his plan, mistakenly supposed that 20 pilasters were present.

⁷¹Koch (*Wanderungen*, II, 244 f.) falsely assumes that this wall was erected as part of a Moslem plot to conceal the most sacred area of the church.

⁷²*Ibid.* In the mid-19th century this was the only one of the four apses in which the columns were joined by a wall.

there are three roundheaded windows. The fifth storey consists of the semidome.⁷³

The apsidal colonnade at the main (or second) level deserves closer scrutiny (figs. 51–52). Some of the commentators on this church have supposed that the other three apses had an identical arcade of six columns at the main level.⁷⁴ However, Koch specifically states in his description of the undamaged church that the east apse had six columns; his plan portrays the other three apses with four columns.⁷⁵ The builders of Bana intentionally distinguished the east apse from the others. Excavations may show that it is the only apse with a lower level.

The six columns are not very uniform in appearance (A–F, fig. 38; figs. 54–55). The plinth-base of each column stands on the central stylobate of a curving shelf (fig. 48). The upper element of each base consists of a scotia, torus, and fillet. None of the six unfluted shafts are monoliths (fig. 55). The shaft of column B is segmented near its base and sizable portions of the upper drums of shafts C, E, and F (fig. 56) extend below the convex moldings. In shafts A, B, and D the base of each upper drum is almost flush with the bottom of the molding. The latter covers much of the upper drum of each shaft. The style of the woven bands in the convex molding is almost identical in columns C through F (fig. 56). In column A the square gaps between the bands are larger than elsewhere and in B the bands are unusually broad. In all of the capitals except A a ridge or fillet separates the convex molding from the echinus (fig. 56). In B, D, E, and F three beads are centered above this molding and below the base of the echinus. In capital C there is a strange variation in that the beads continue only along the south flank of the capital (figs. 54, 56); this may be an indication that the artist was experimenting with a new motif. Only in capital A do the beads form a separate lower register *within* the echinus. The bolster of capital A has the same three beads; the upper register of A's echinus has three eggs without darts. In the capitals B through F all of the echini have three eggs without darts, except C which has only two. The bolsters of B and C have two eggs separated by tripartite fronds, and capital D has a

similar motif with three eggs. On the bolsters of E and F there are three broadly splayed leaves resembling classical palmettes. The exterior of each volute as well as the underside of the abaci are covered with leaves which vary in style from capital to capital. Since the bodies of most of the volutes are buried in the masonry of the second period of construction, it is difficult to evaluate them; the execution of the spirals at the ends of the volutes varies greatly. Though the style of these capitals is obviously based on classical paradigms, the incredible inconsistency in the execution of six elements so readily visible and so closely spaced is surely another indication that the first period of construction of the church was piecemeal.⁷⁶ There is no attempt to balance or juxtapose variant styles for aesthetic effect, as was done in the Georgian monastic church at Işhan.⁷⁷ A concave monolithic block on the top of each abacus supports the adjoining horseshoe-shaped arches of the arcade (fig. 54). Traces of plaster with blue pigment are visible on the arches, and it seems likely that the entire apsidal wall above was covered with frescoes.

The square, west portions of the two piers flanking the east apse are now, unfortunately, completely collapsed. From earlier descriptions, plans, and photographs it is certain that the massive piers were hollow and contained at least four storeys of rooms with connecting stairways.⁷⁸ The smaller east portion of each pier, which forms the curving face of the interior side of the ambulatory, survives to three storeys in height (figs. 50–52).⁷⁹ At the lower level are flanking apsidioles which have a single embrasured window in the center of each apse and a larger embrasured opening in the north and south walls of the flanking nave (fig. 38). The openings in the west wall of each nave are more difficult to determine because of damage. The north apsidiole has clear traces of a door at the west. The accumulation of dirt and rubble on the interior of the apsidioles probably blocks entrances to stairways that connect with the main level.⁸⁰ A single

⁷³ The upper levels of the church are not represented on my plan (fig. 38), because the masonry was too unstable to climb.

⁷⁴ See *supra*, note 70.

⁷⁵ Koch, *Wanderungen*, II, 244 f.; cf. Strzygowski, *Baukunst*, 121 f. That none of the exedrae here has a continuous solid wall indicates that Bana bears greater similarity to the church of St. Gregory the Illuminator (the Gagikaşen) at Ani than to Zvart'noc'.

⁷⁶ In the piers flanking the east apse the capitals, which are shown in pre-1920's photographs but have now vanished, are equally inconsistent. See: Mepisashvili and Tsintsadze, *Arts*, 96 f.; and Severov, *Pamjatniki*, 85, 87; cf. Takaişvili, "Xristianskie," 88 ff., and the publications in the second paragraph of note 30 *supra*.

⁷⁷ Mepisashvili and Tsintsadze, *Arts*, 98.

⁷⁸ See: *supra*, note 70 and P. Uvarova, "Xristianskie pamjatniki," *Materialy po arxeologii Kavkaza*, 4 (Moscow, 1894).

⁷⁹ Only the first (or lower) level and the second (or main) level are depicted on my plan (fig. 38).

⁸⁰ See *supra*, note 70.

groined vault covers the nave of each apsidiole, and the north apsidiole seems slightly higher than its southern counterpart. This discrepancy could be due to the shifting of the rock-foundation. The surviving main-level rooms at the north and south are almost identical in size and plan. Each is triangular and covered by a faceted hexagonal cone (fig. 53). The straight sides of the cone taper inward at a fairly steep pitch and terminate below a horizontal block of ashlar. Small squinches spring from the three corners of the room to support the cone. At the center of the east wall of each room a single column supports adjoining arches. Today the exterior of the west wall of each room is articulated by a tall, thin apse with a narrow, embrasured window (figs. 50–52). The top and sides of the square-headed niche flanking each apse still have the springings for the columned arcade in the west portion of the pier, now collapsed.⁸¹ The change in the elevation of the north and south piers is also reflected at this level where the niche and apse at the north are slightly higher than their counterparts at the south (figs. 51–52). Above, in the fourth level (also collapsed) there are still fragments of a surviving apsidal niche (fig. 50).

Kız (near Olan)

On the east bank of the Oltu Suyu in the Pernek canyon is the fortress of Kız,⁸² an important guardian of the strategic road which links Oltu to Artvin. Kız (Greek: Πανάσκερ; Armenian: P'anaskert, Panaskert, Panak'sēr; Georgian: P'anaskerti) is less than one kilometer southeast of the Armenian cloister of Olan (fig. 63, top, center). There are no textual references or inscriptions relating to the construction of this fort and little is known about its history. In the first decade of the eleventh century the Iberian king, Bagarat III, frequently held court in the castle of P'anaskert,⁸³ and on May 7, 1014, he died while in residence there.⁸⁴ Fifty years

later the site was captured by Alp-Arslān.⁸⁵ During the campaign of Timūr Leng in 1401 it is said to have been the site of a battle.⁸⁶ Wakhoucht indicates that Kız along with Oltu once served as the administrative seat of the province.⁸⁷ The architectural features of this fort are typical of those seen at other Armenian sites in the region.⁸⁸

The circuit walls of the three baileys that constitute Kız Kalesi ascend and surround the sharp diagonal face of an oblong outcrop (fig. 57).⁸⁹ This mass of rock, which rises to a height of 1,350 m, is backed at the east by a mountain and at the west by the cultivated plots of land in the flat base of the canyon. Since the northeast flank of the outcrop is almost vertical, the amount of construction there is limited (fig. 58). The more accessible slopes at the west, south, and southeast have elaborate defenses to prevent an enemy advance (figs. 59–62).

Near the base of the outcrop in the north portion of the west flank is the narrow, almost rectangular lower bailey. Its now shattered entrance is at the extreme north (fig. 59, far left).⁹⁰ The entrance is more complicated by far than it appears at first glance and is in keeping with the Armenian tradition of restricting access. To reach this portal one must wind around a narrow ascending path. The path does not lead to the portal, but to the base of an almost vertical wall which rises more than three meters before reaching the sill of the entrance. Some sort of retractable wooden ladder was probably used to gain entrance. On the interior side of the door the ground falls away so sharply that those entering would have to descend a steep staircase and then make an abrupt ascent to reach the south half of the lower bailey (fig. 63). An enemy in the lower bailey could not have climbed the steep cliffs at the

⁸⁵ *Histoire de la Géorgie*, 327; and J. Markwart, *Skizzen zur historischen Topographie und Geschichte von Kaukasien* (Vienna, 1928), 50.

⁸⁶ *Histoire de la Géorgie*, 675.

⁸⁷ Wakhoucht, *Description*, 119, map No. 1. P'anaskerti appears as late as the 19th century in the titles of Georgian princes; see: C. Toumanoff, *Manuel de généalogie et de chronologie pour l'histoire de la Caucase chrétienne* (Rome, 1976), 424 ff.; and *idem*, "The Fifteenth-Century Bagratids and the Institutions of Collegial Sovereignty in Georgia," *Traditio*, 7 (1949–51), 184 f.

⁸⁸ See *supra*, notes 21 and 22. The Armenian community at this site may have been Chalcedonian; see: V. Arutjunova-Fidanjan, "Sur le problème" (*supra*, note 14), 163; and F. Conybeare, "On Some Armenian Notitiae," *BZ*, 5 (1896), 126.

⁸⁹ Due to extenuating circumstances a plan was not executed for this site.

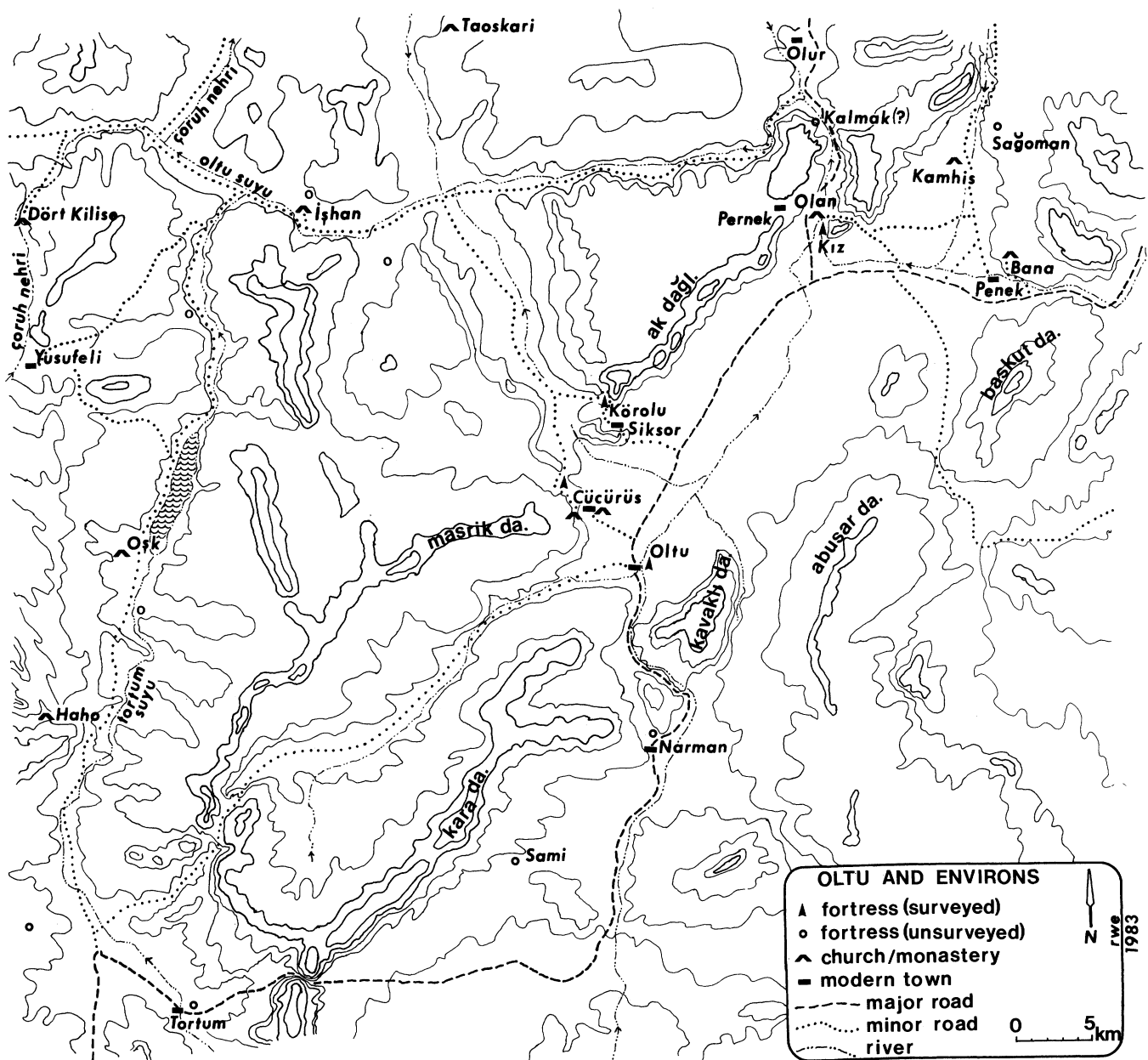
⁹⁰ Below the lower bailey the denizens of the village east of Olan built an aqueduct to transport water from the Oltu Suyu to the fields north of the outcrop. This conduit and its supporting piers are visible in figure 59.

⁸¹ Mepisashvili and Tsintsadze, *Arts*, 96.

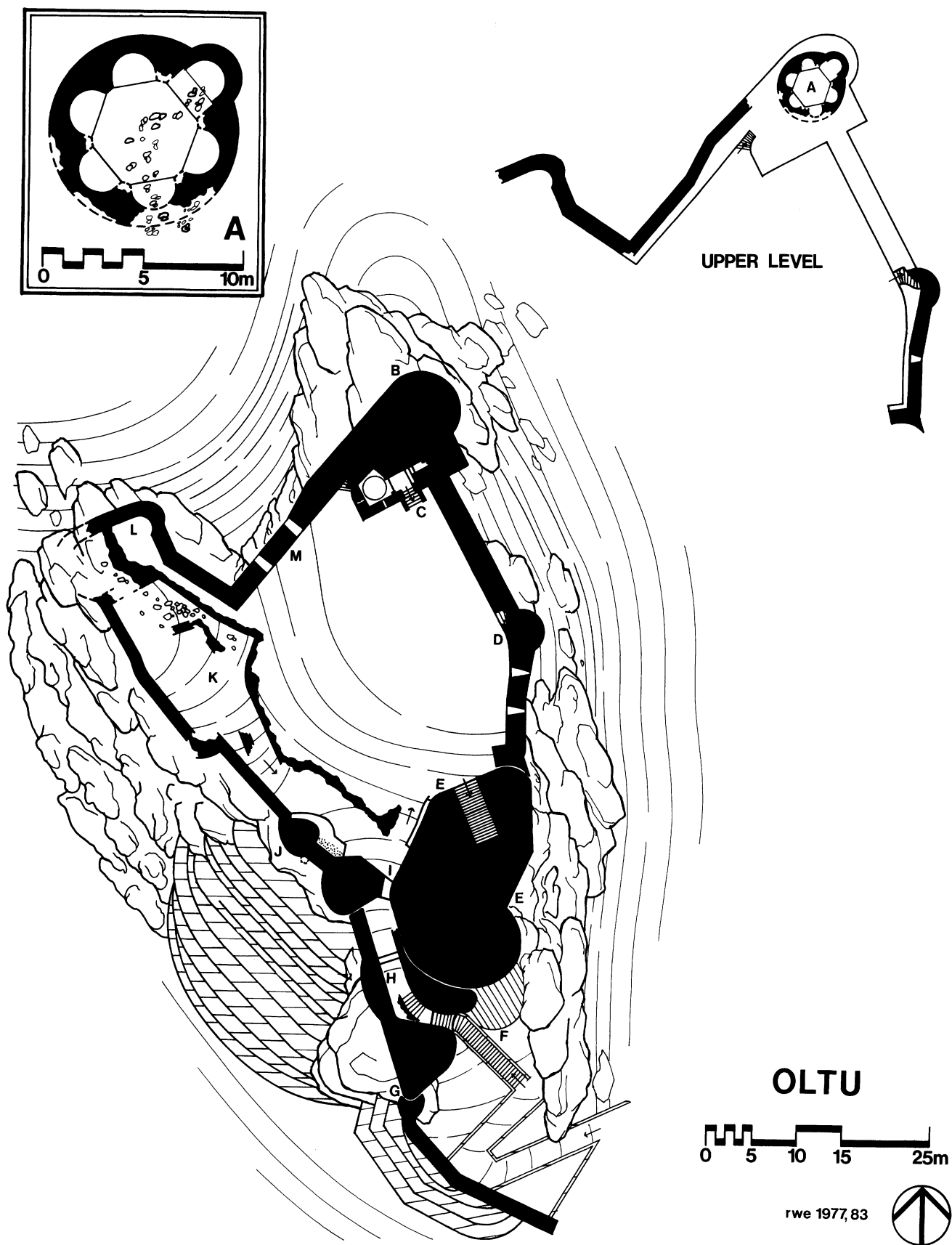
⁸² On the Deutsche Heereskarte (Blatt-Nr. C-XV, Oltu, 1941) this fortress appears as "Harap kale." De L'Isle's map of Georgia, which was published in 1775, lists this site as Panasketi. This Kız near Olan is distinct from the "Kız Kalesi" on the map published by Niels and Danielle Gutschow ("Kirchen," 239, 243 note 16). I associate their Kız with Kalmak; see note 103 *infra*. I assume that the site which they call the "Burg Pernak" ("Kirchen," 243 note 16) is the Kız (near Olan) of this Report.

⁸³ Toumanoff, *Studies*, 498 note 273.

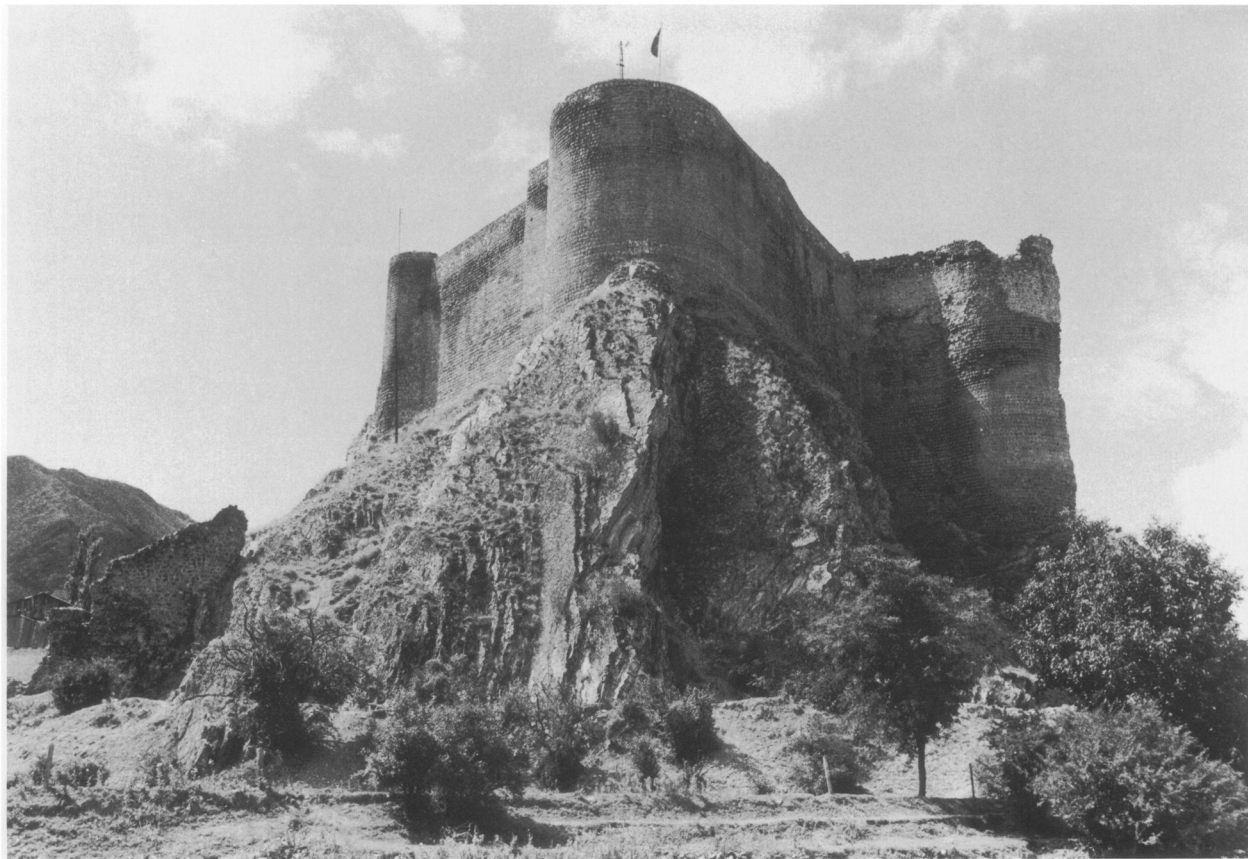
⁸⁴ *Histoire de la Géorgie*, 302; and Honigsmann, *Ostgrenze* (*supra*, note 11), 220 f.



1. Map of Oltu-Penek Valley, Northeast Turkey



2. Turkey, Oltu Kalesi



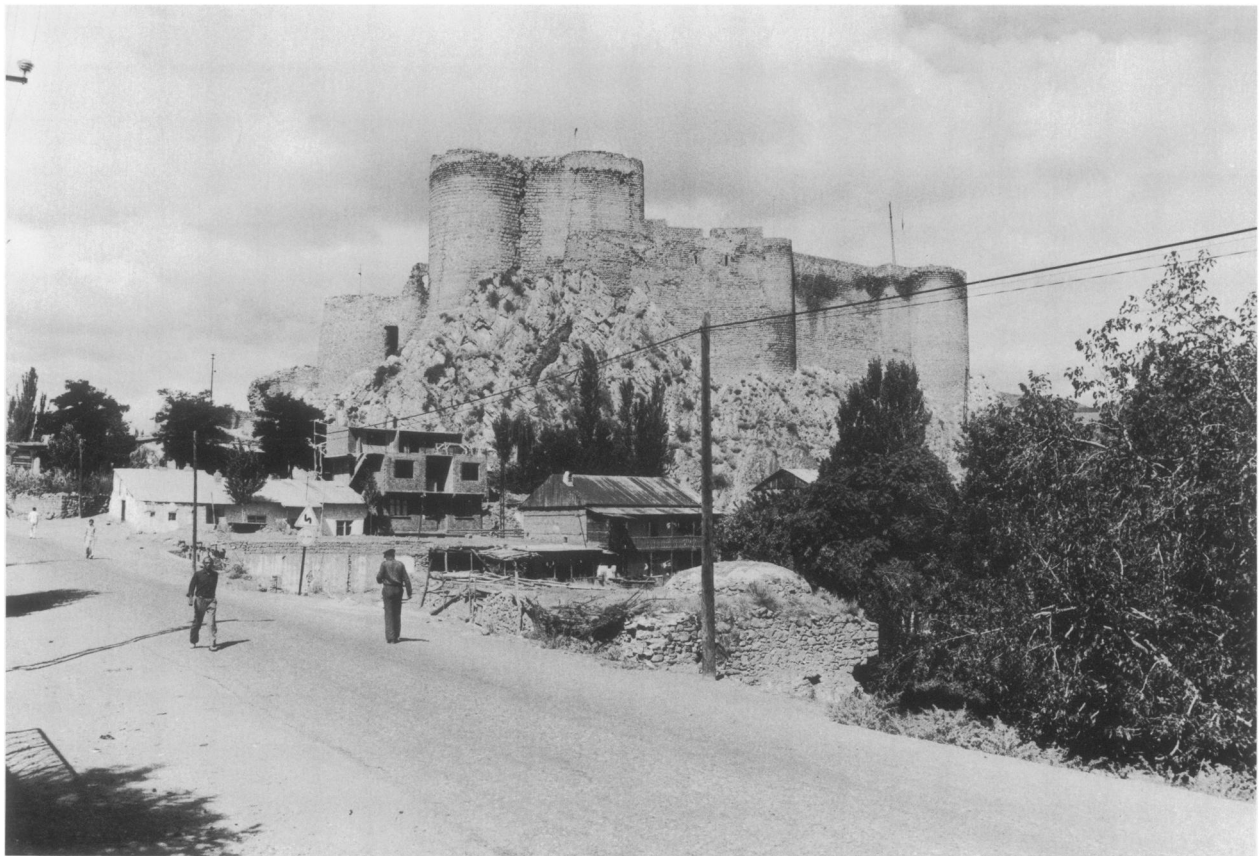
3. Oltu Kalesi, Exterior, looking South



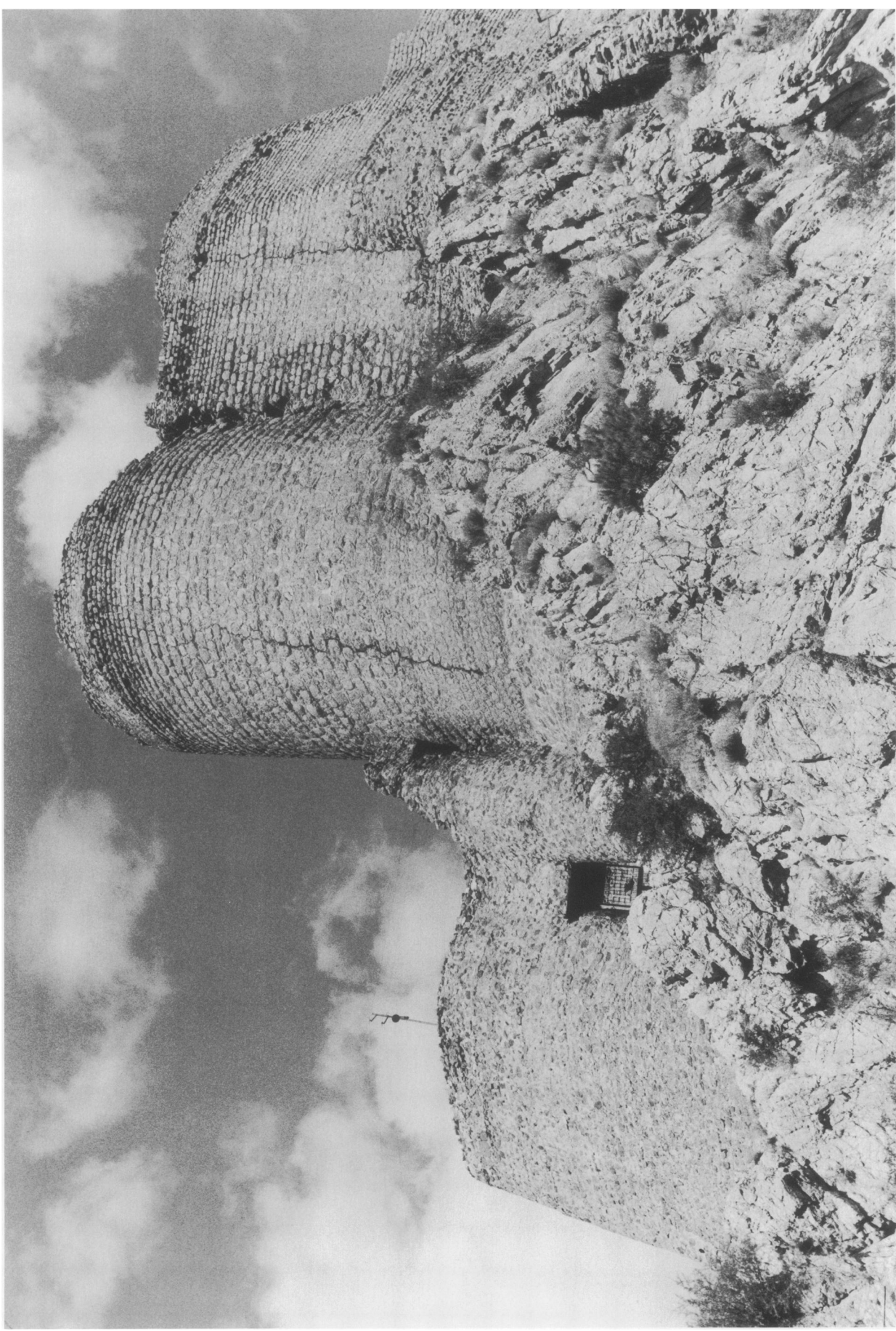
4. Oltu Kalesi, Exterior, looking Southwest



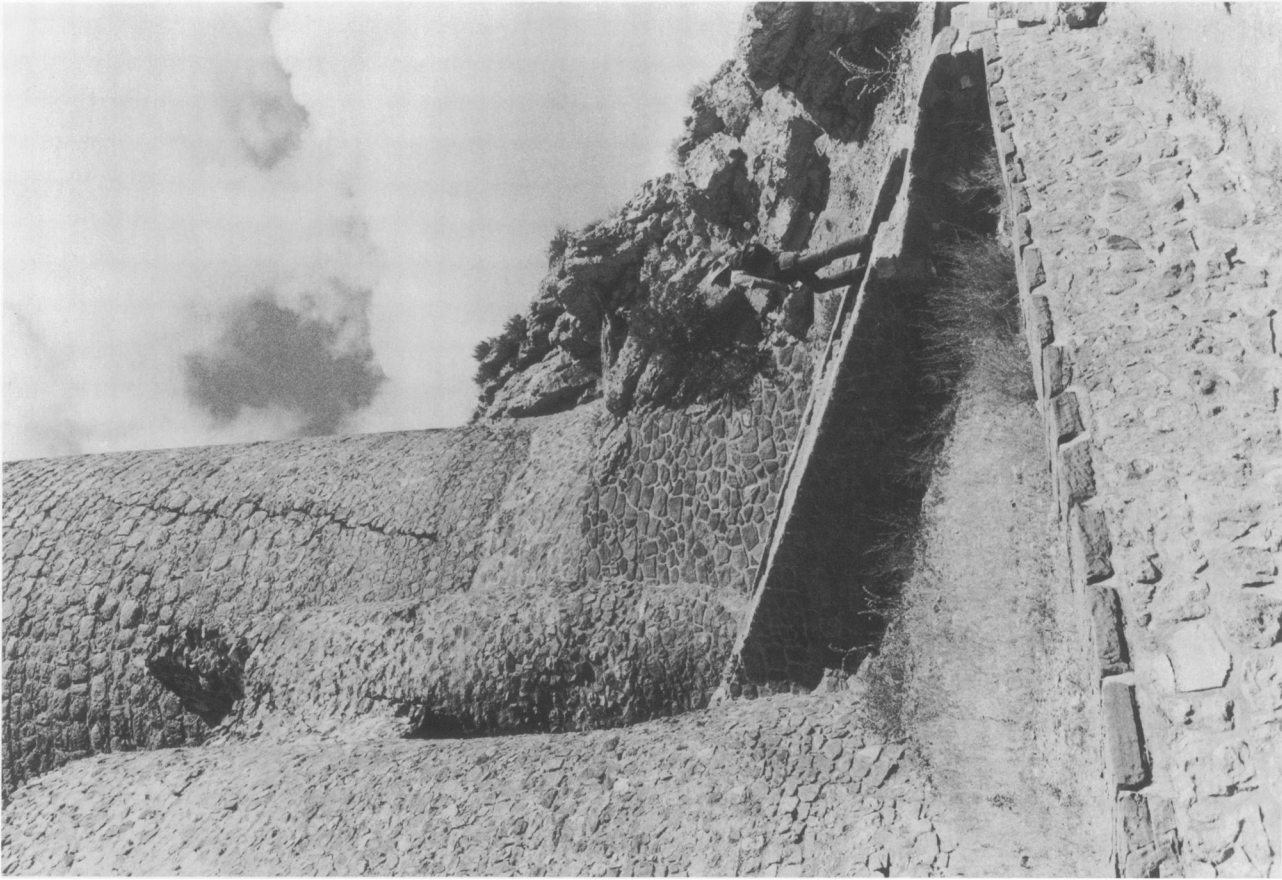
5. Oltu Kalesi, looking Northeast from Fortress



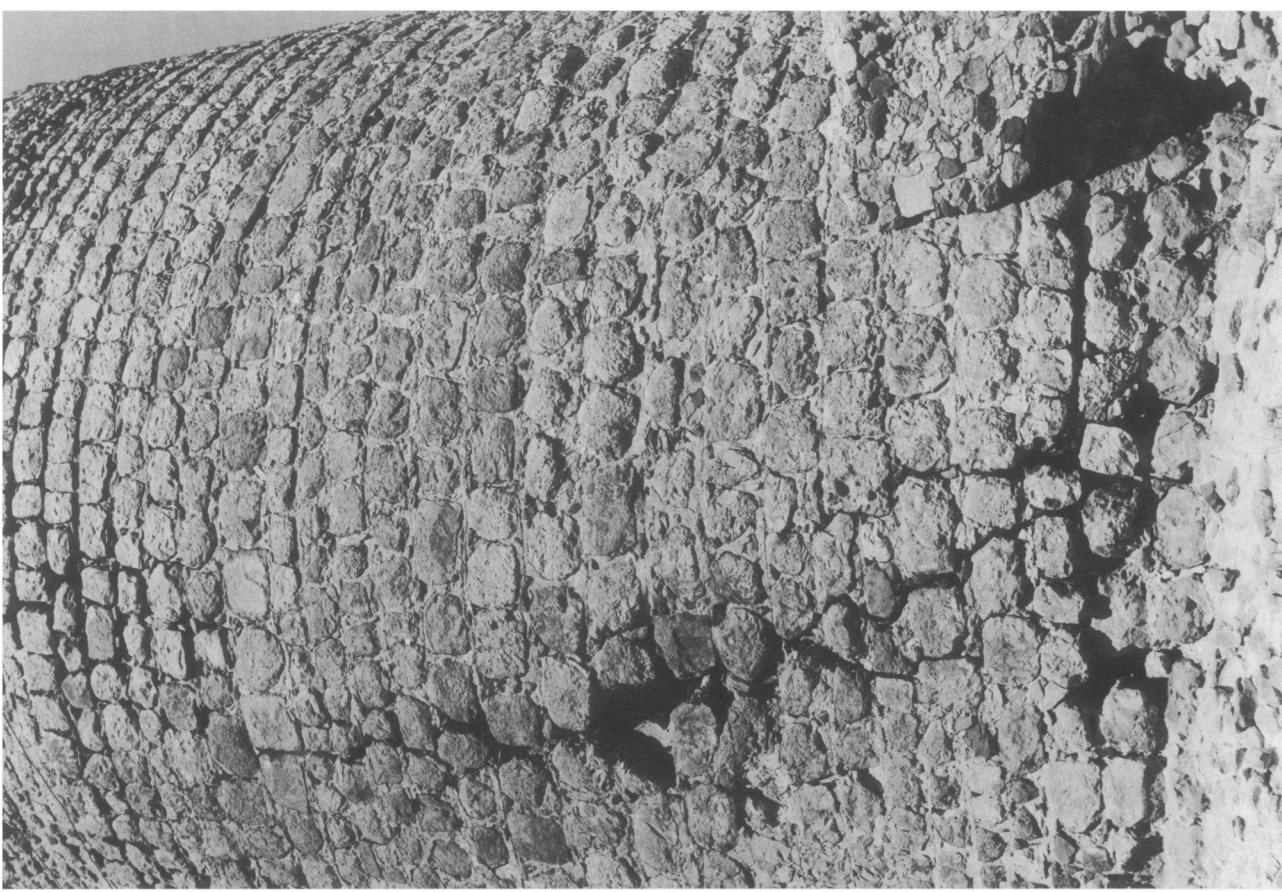
6. Oltu Kalesi, Exterior, looking Northwest



7. Oltu Kalesi, Exterior, looking West at E, F, and G



8. Oltu Kalesi, Exterior, looking North at E and F



9. Oltu Kalesi, Exterior, looking North at South End of E



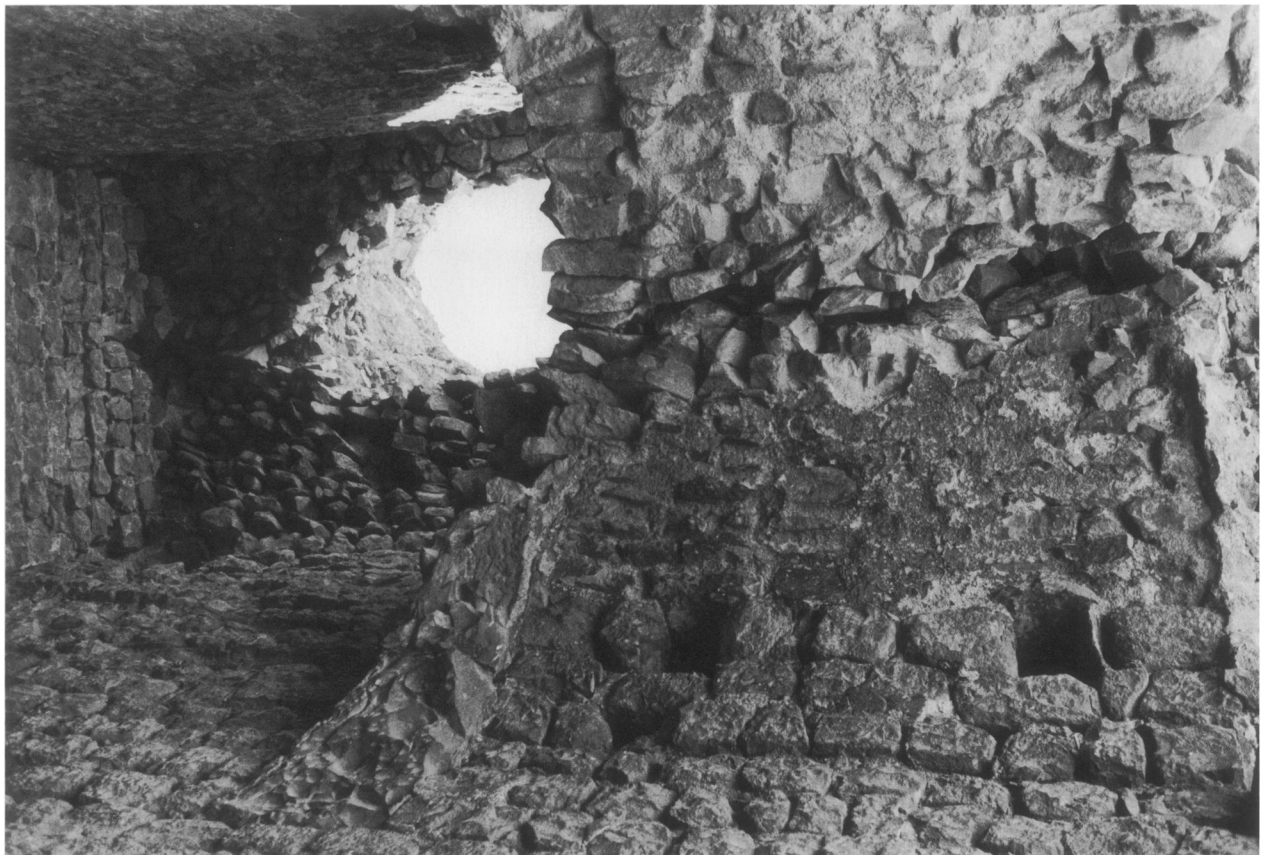
10. Oltu Kalesi, Exterior, looking North from Top of H to I



11. Oltu Kalesi, Exterior, looking East



12. Oltu Kalesi, Interior, looking South at E



13. Oltu Kalesi, Interior, looking up at Vaulted Ceiling in E



14. Oltu Kalesi, Interior, looking North at C



15. Oltu Kalesi, Interior, looking Northeast at A: Inscription at Base (arrow)



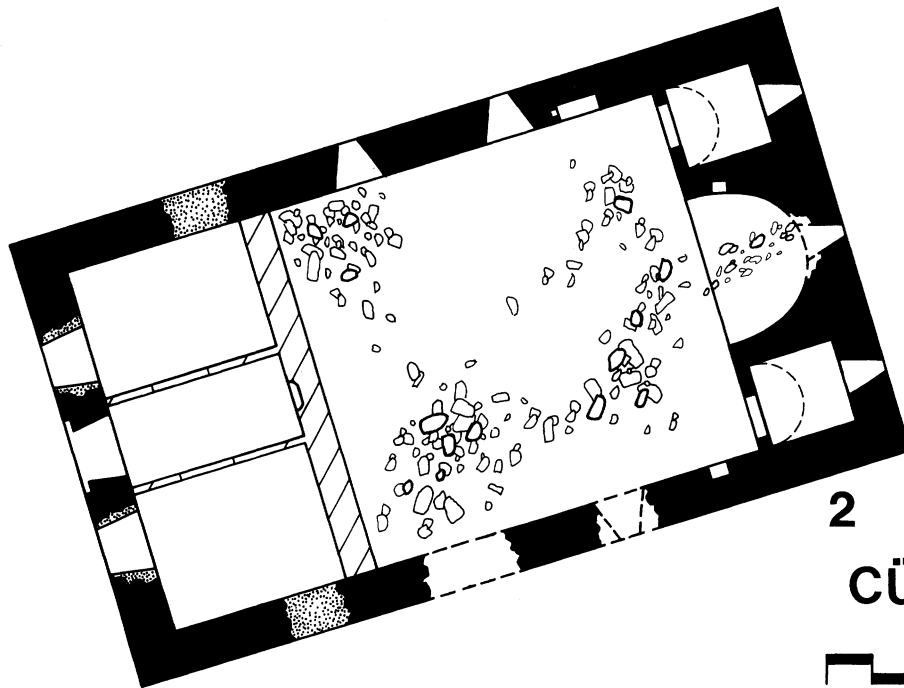
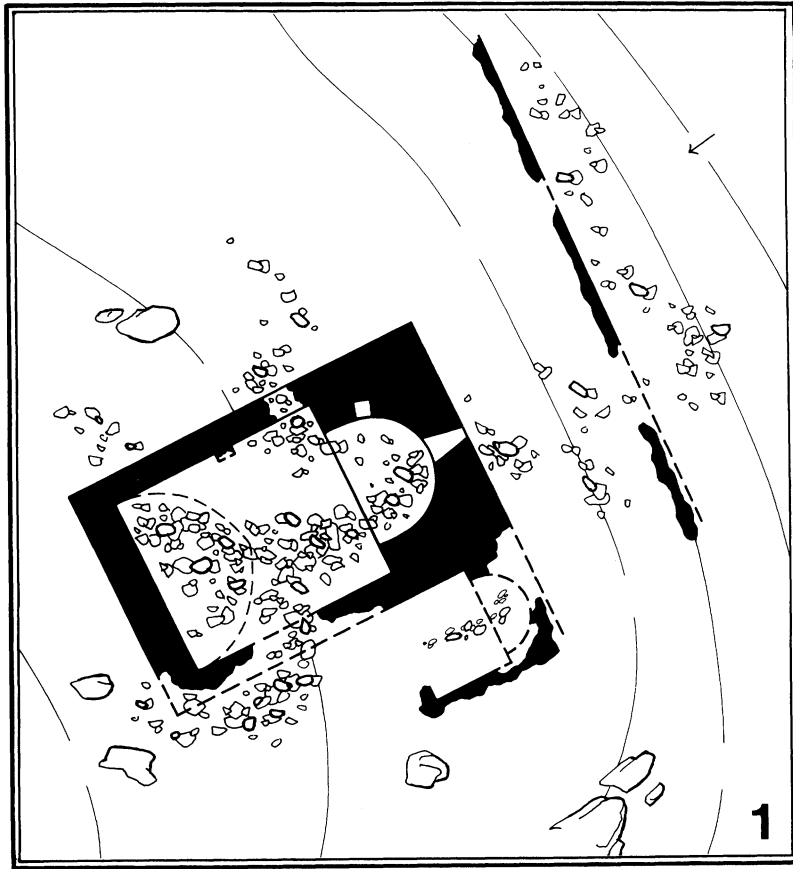
16. Oltu Kalesi, Interior, looking North at A



17. Oltu Kalesi, Interior, looking Southeast at A

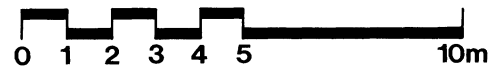


18. Oltu Kalesi, Interior, looking East at Inscription in A



2

CÜCÜRÜS KÖY



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20. Cücürüs 1, Exterior, looking Northwest



21. Cücürüs 1, Exterior, looking East



22. Cücürüs 1, Interior, looking Northeast



23. Cücürüs 1, Interior, looking West



24. Cücürüs 2, Exterior, looking Southwest



25. Cücürüs 2, Exterior, looking East



26. Cücürüs 2, Exterior, looking Northwest at West End of South Wall



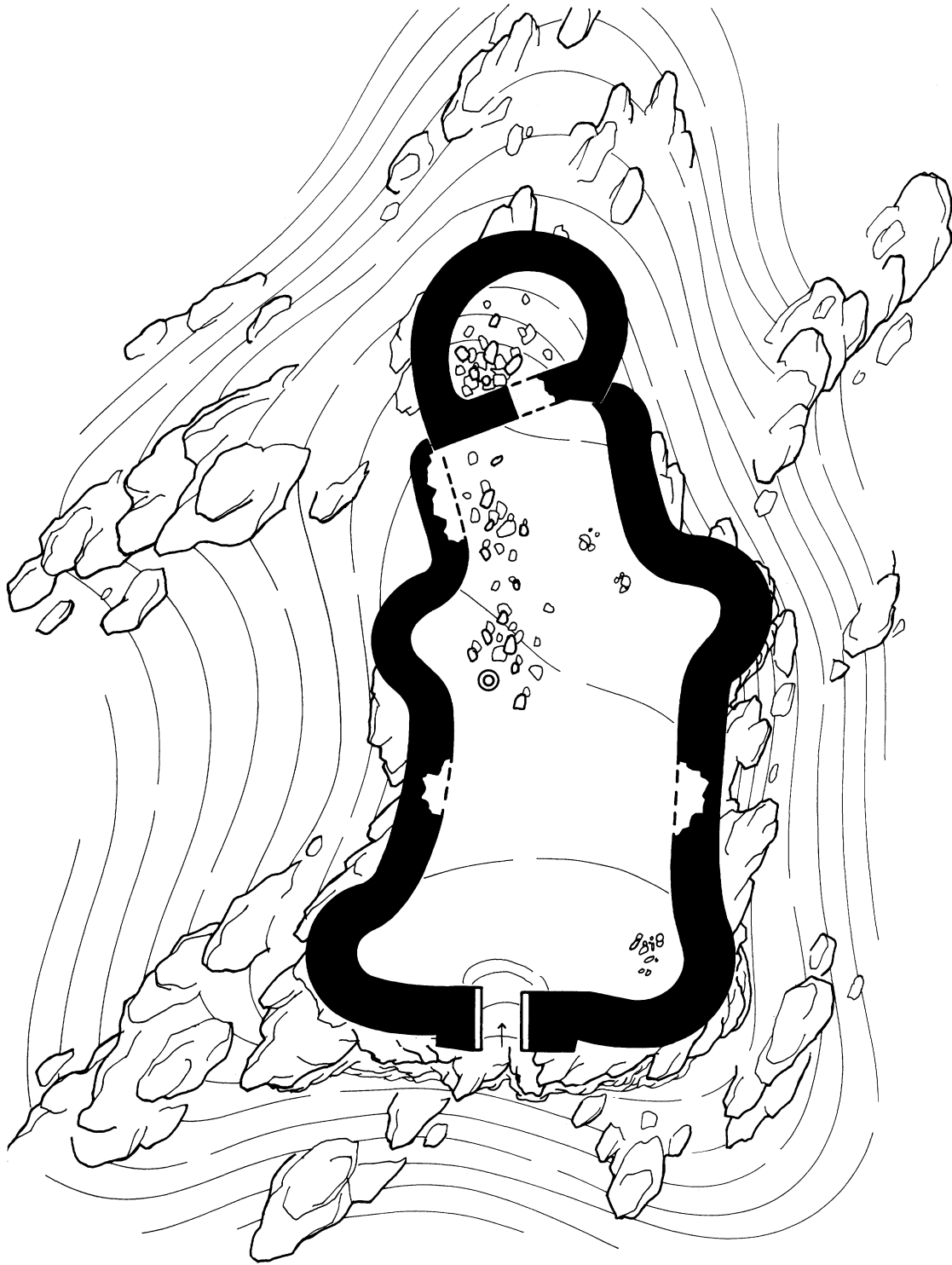
27. Cücürüs 2, Interior, looking Southeast at Junction of Chevet and Nave



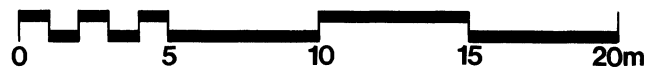
28. Cücürüs 2, Interior, looking Northeast at Chevet



29. Cücürüs Kalesi, looking Northwest at Fortress and Outcrop (arrow)



CÜCÜRÜS

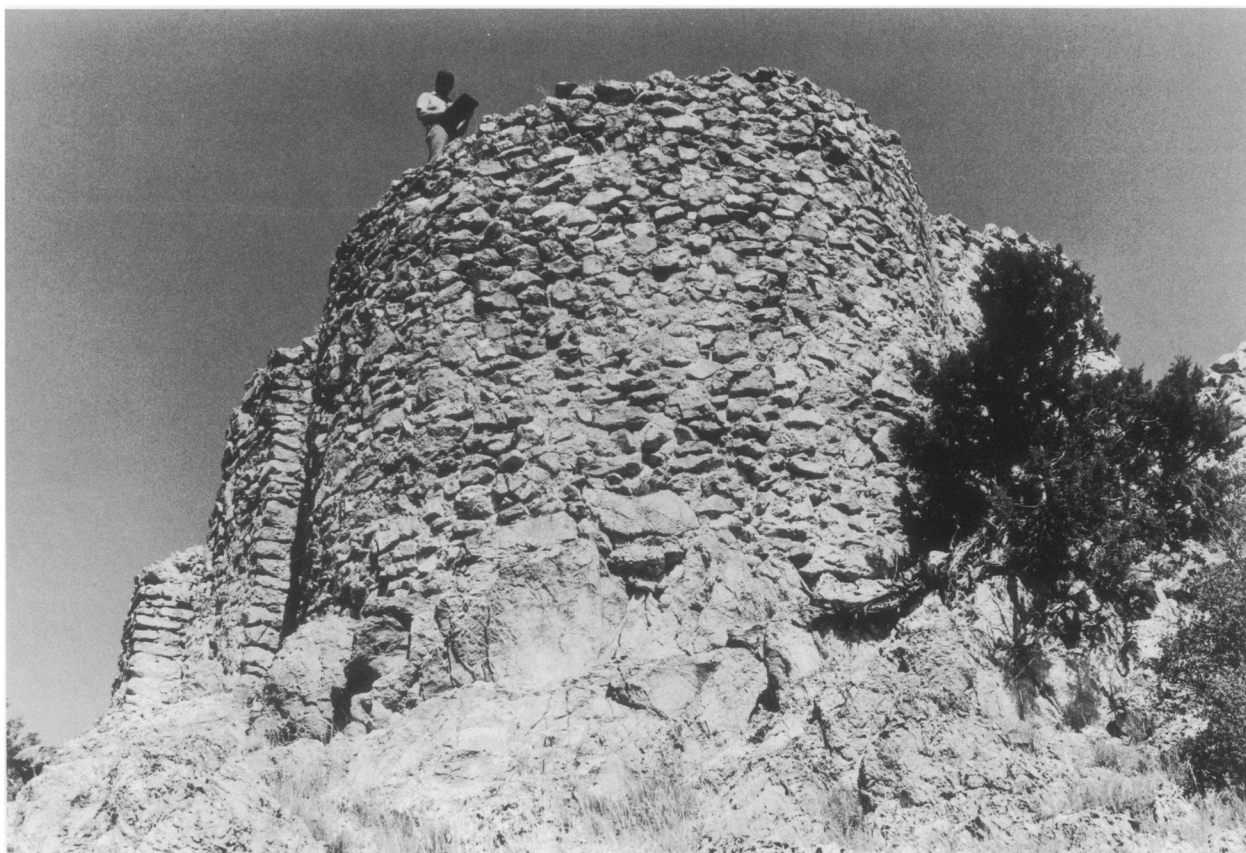


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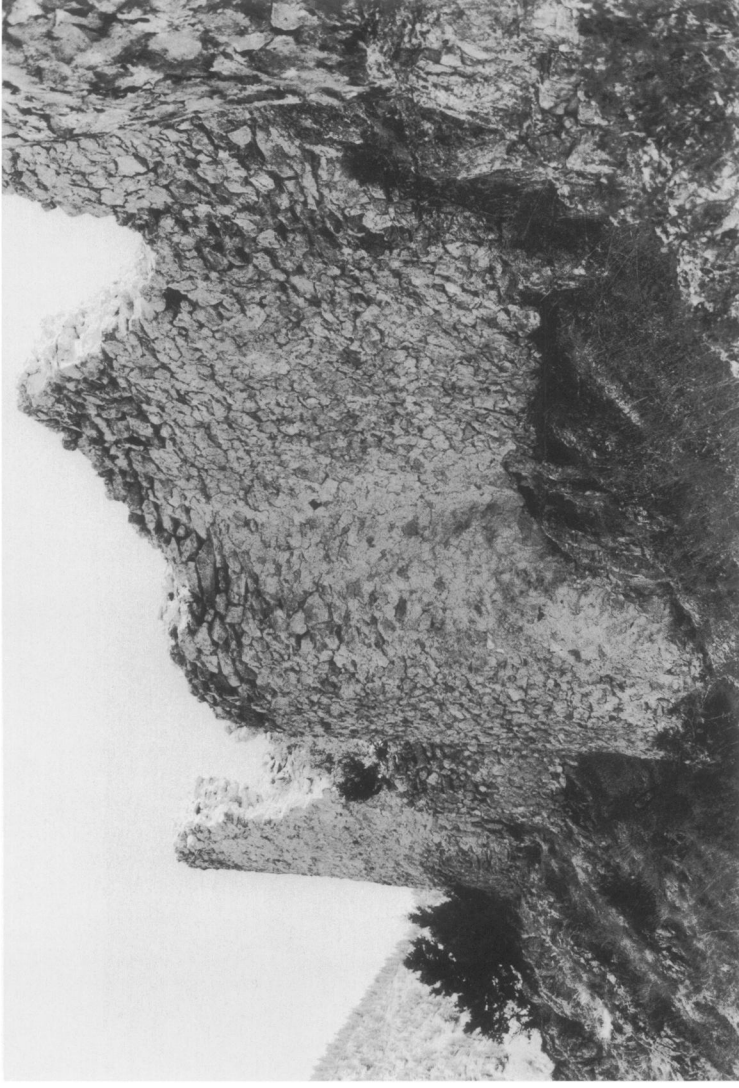




31. Cücürüs Kalesi, Exterior, looking Southwest



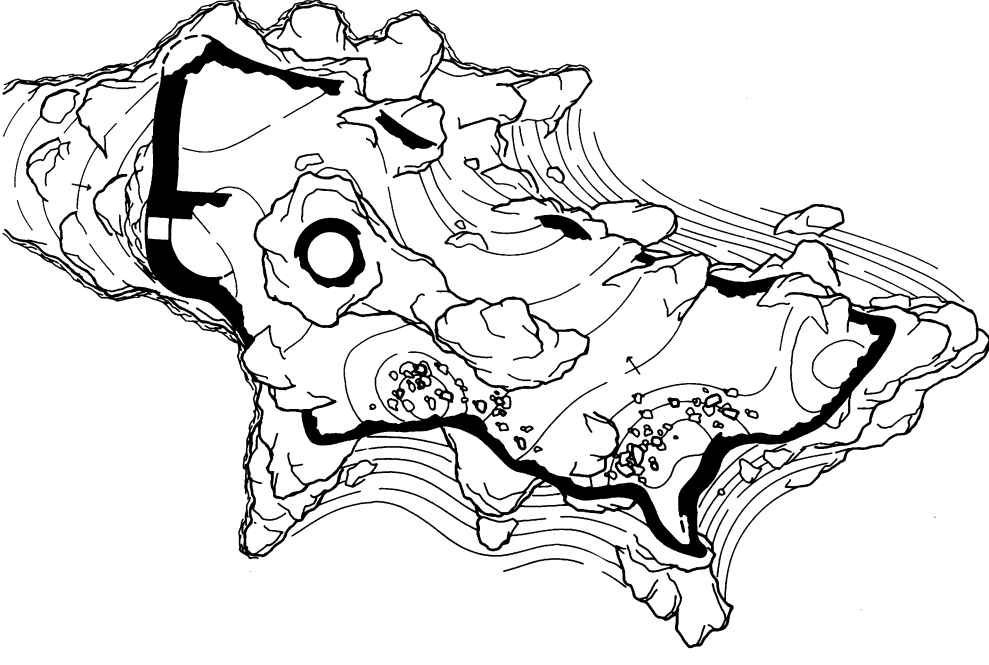
32. Cücürüs Kalesi, Exterior, looking Northwest at Southeast Tower



33. Cüçürüs Kalesi, Exterior, looking Northeast along West Wall



34. Körolu Kalesi, Exterior, looking South at Fortress and Outcrop



KÖROLU

0 5 10 15 20m



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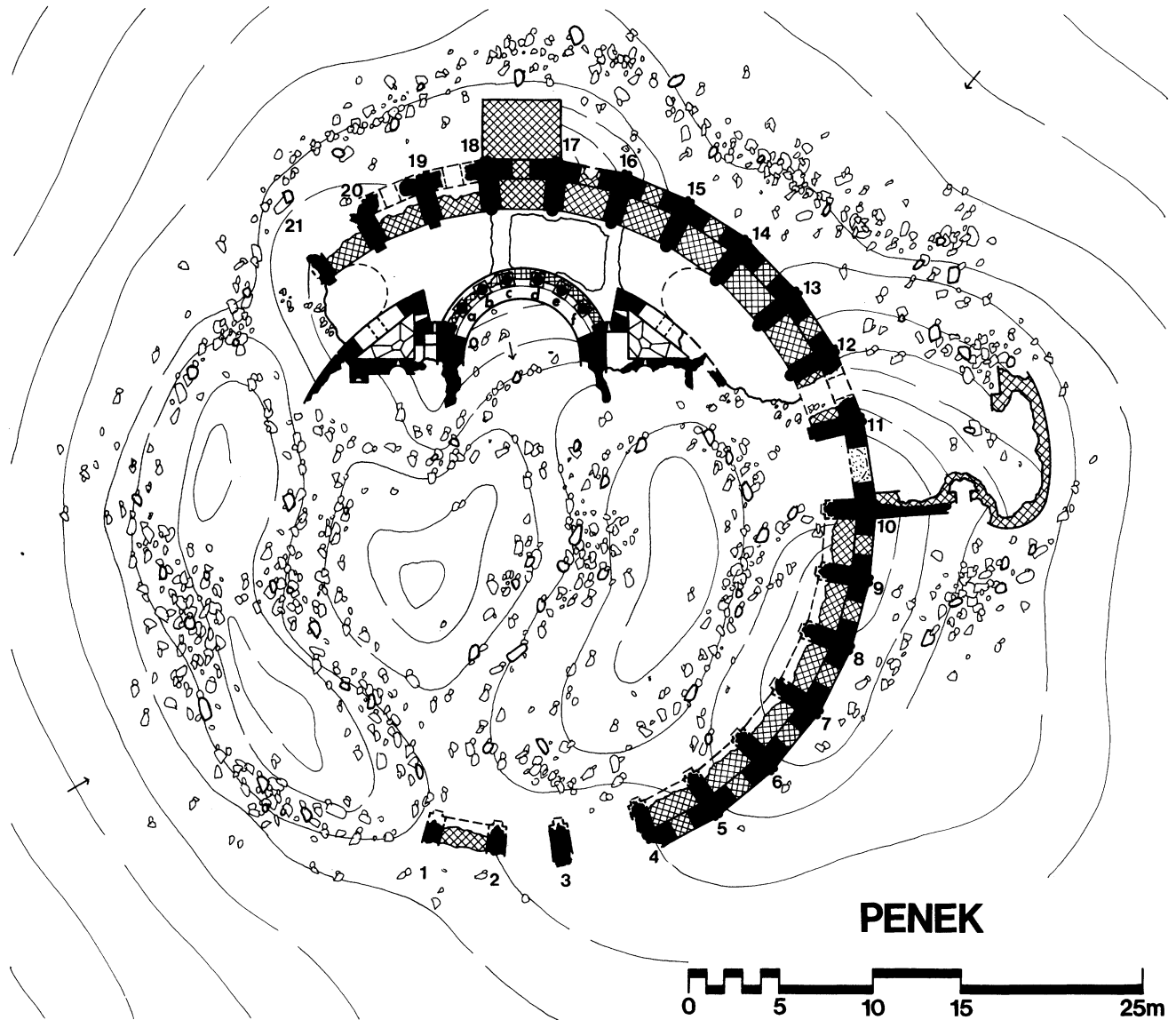
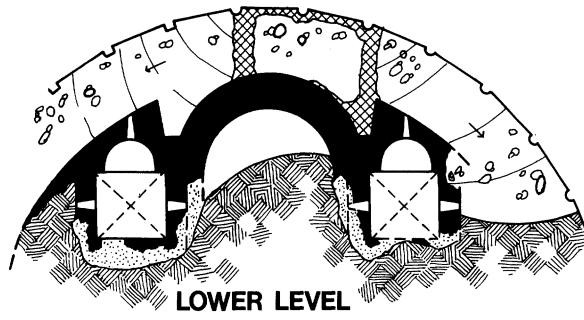
35. Turkey, Körolu Kalesi



36. Körolu Kalesi, Exterior, looking South at North End



37. Körolu Kalesi, Interior, looking North at North End



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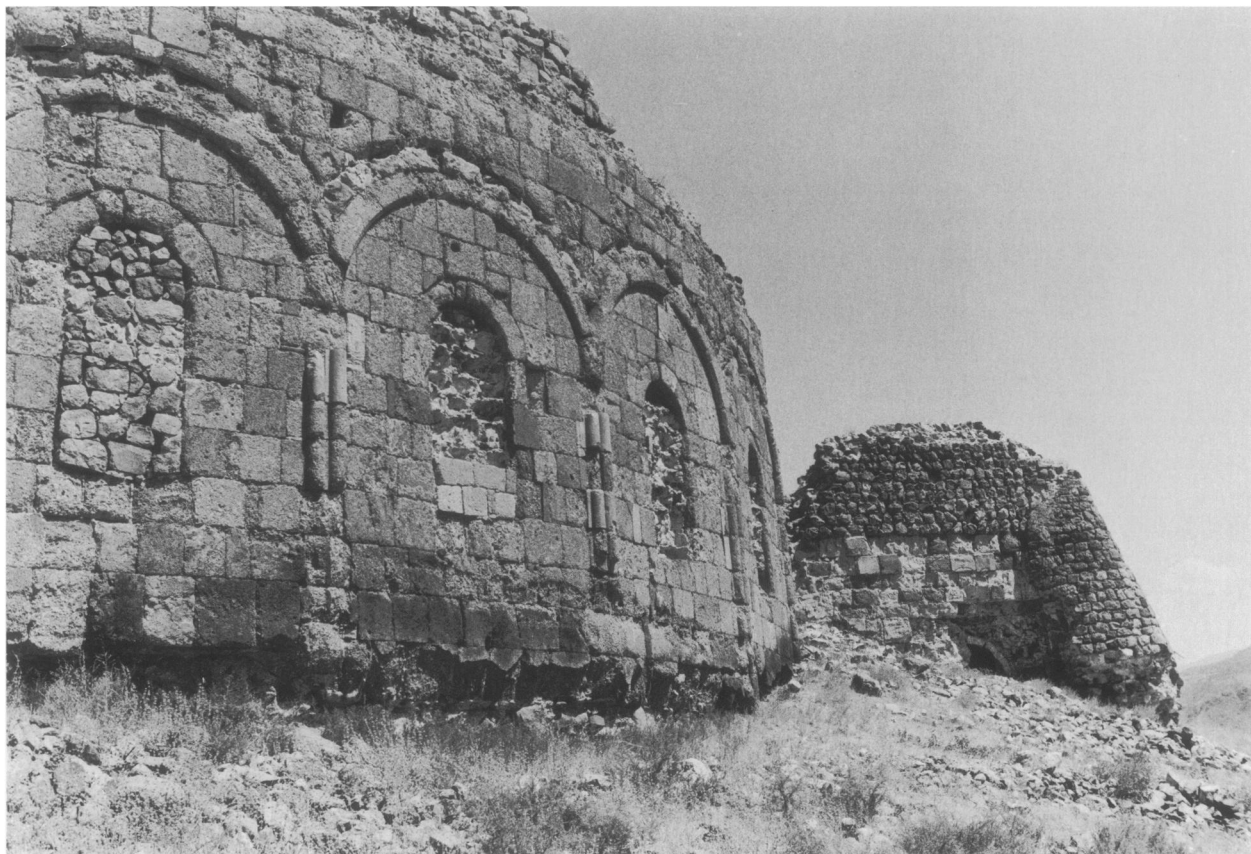




39. Penek Kilise, Exterior, looking Northwest, Area between Pilasters 11 and 17



40. Penek Kilise, Exterior, looking North, Area between Pilasters 6 and 17



41. Penek Kilise, Exterior, looking Southeast, Area between Pilasters 5 and 10



42. Penek Kilise, Exterior, looking Northwest, Area between Pilasters 13 and 17



43. Penek Kilise, Exterior, looking West, Area between Pilasters 18 and 20



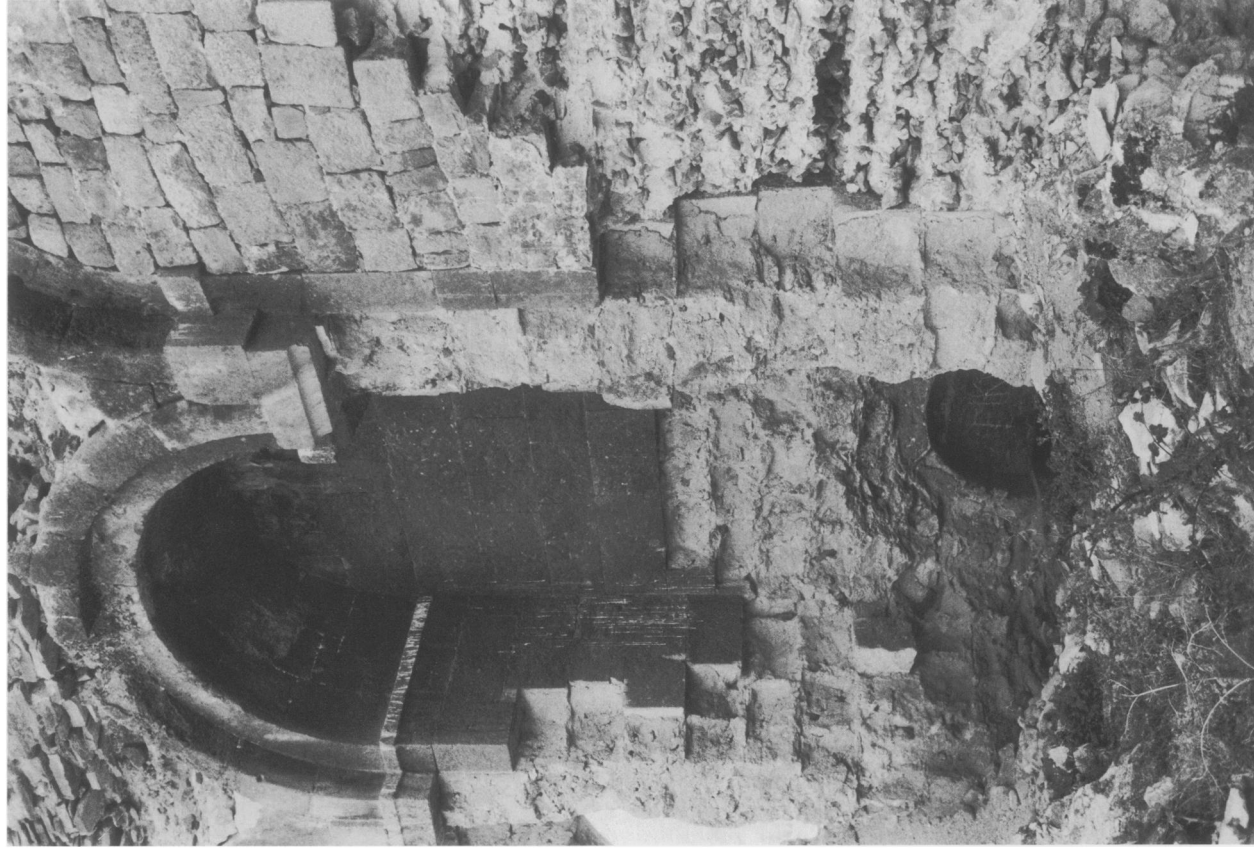
44. Penek Kilise, Ambulatory, Interior, looking Northwest, Upper Portion of Pilasters 2 and 3



45. Penek Kilise, Ambulatory, Interior, looking Southwest, Area between Pilasters 1 and 7



46. Penek Kilise, Ambulatory, Interior, looking Southeast, Area between Pilasters 7 and 14



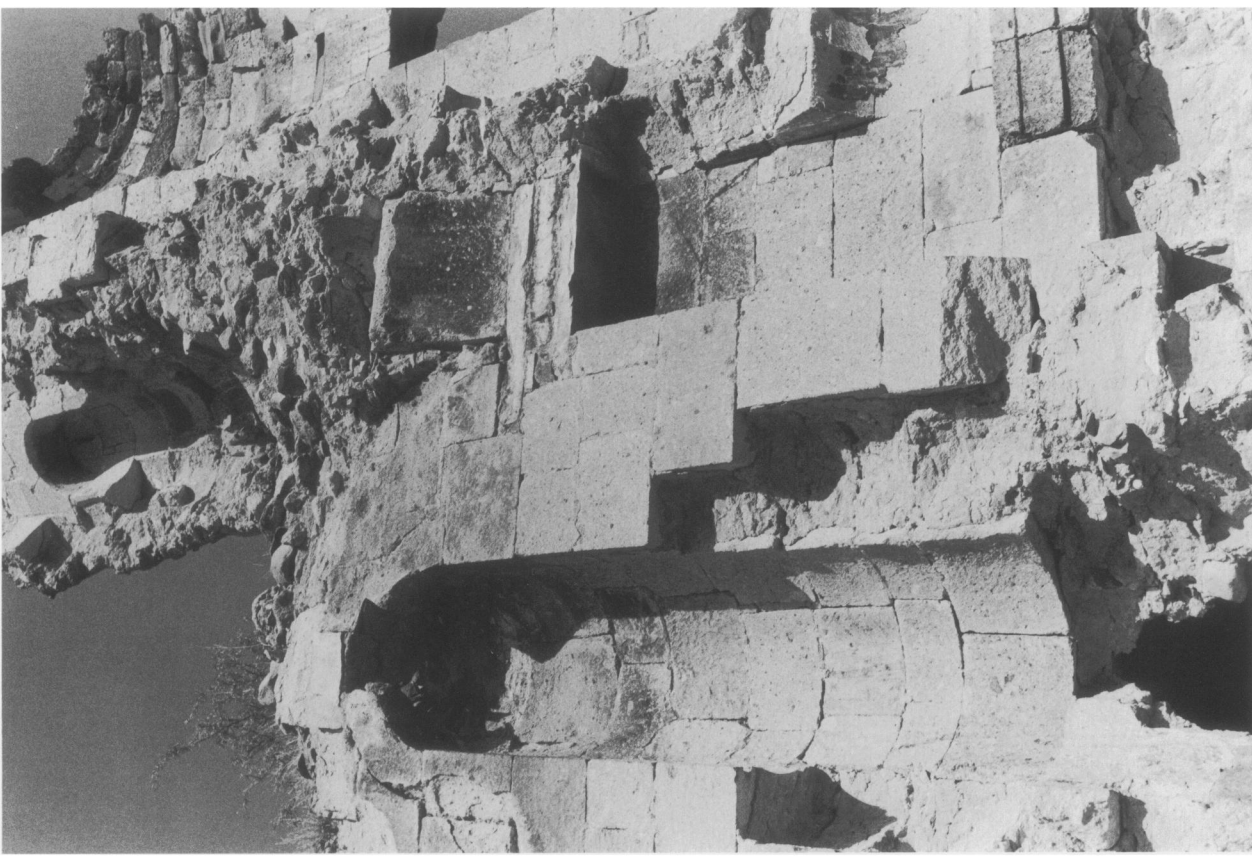
47. Penek Kilise, Ambulatory, Interior, looking Southeast, Door (below) between Pilasters 10 and 11



48. Penek Kilise, Ambulatory, Interior, looking South, Exterior of East Apse (right); Pilasters 15 through 18 (left)



49. Penek Kilise, Ambulatory, Interior, looking Southeast, Area between Pilasters 18 and 21



50. Penek Kilise, Northeast Pier, looking Southeast, Upper Two Levels



51. Penek Kilise, Interior, looking East, East Apse and Flanking Piers



52. Penek Kilise, Interior, looking Southeast, East Apse, Flanking Piers, and Ambulatory



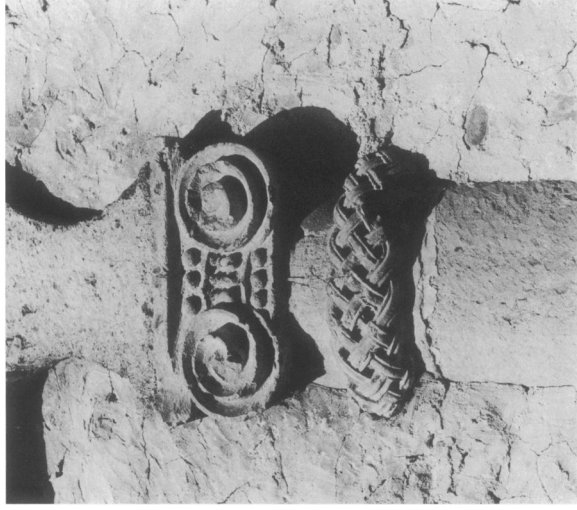
53. Penek Kilise, Southeast Pier, Interior, looking up at Faceted Ceiling



54. Penek Kilise, East Apse, Interior, looking Northeast, Upper Portions of Columns A through D



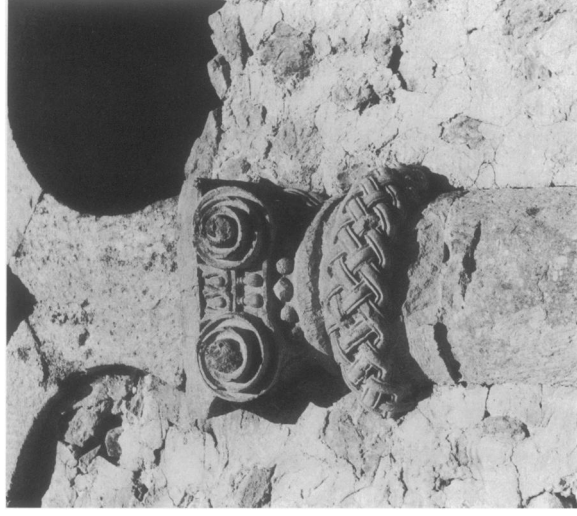
55. Penek Kilise, East Apse, Interior, looking Northeast, Lower Portions of Columns A through D



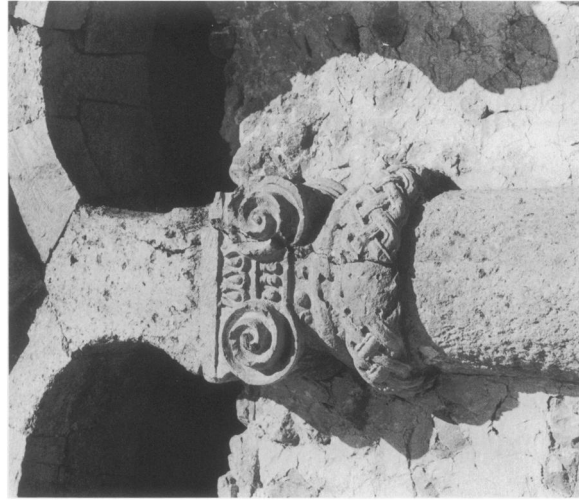
A. Looking Northeast, Capital A



B. Looking East, Capital B



C. Looking East, Capital C



D. Looking East, Capital D



E. Looking Southeast, Capital E



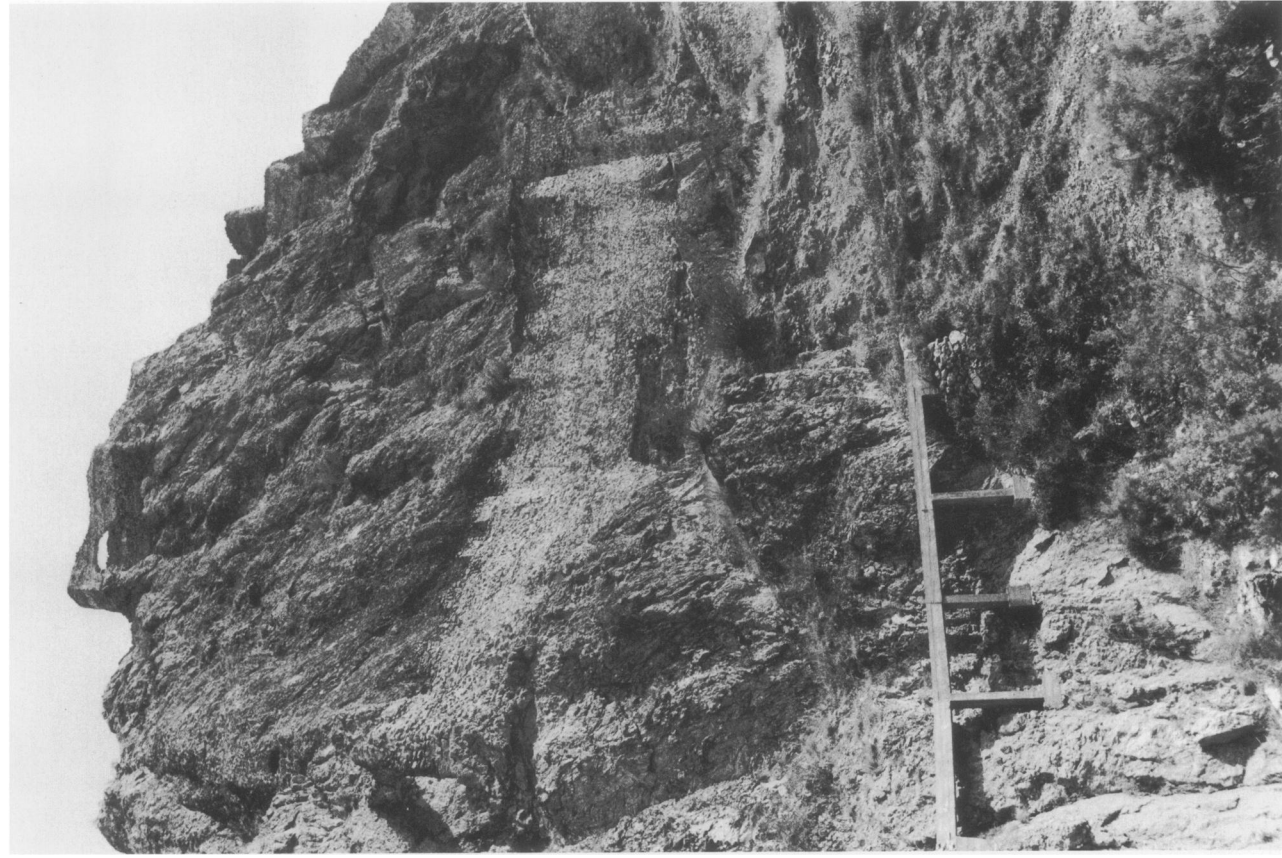
F. Looking Southeast, Capital F



57. Kız (near Olan), looking East at Fortress and Outcrop



58. Kız (near Olan), Exterior, looking Southwest



59. Kız (near Olan), Exterior, looking Southeast



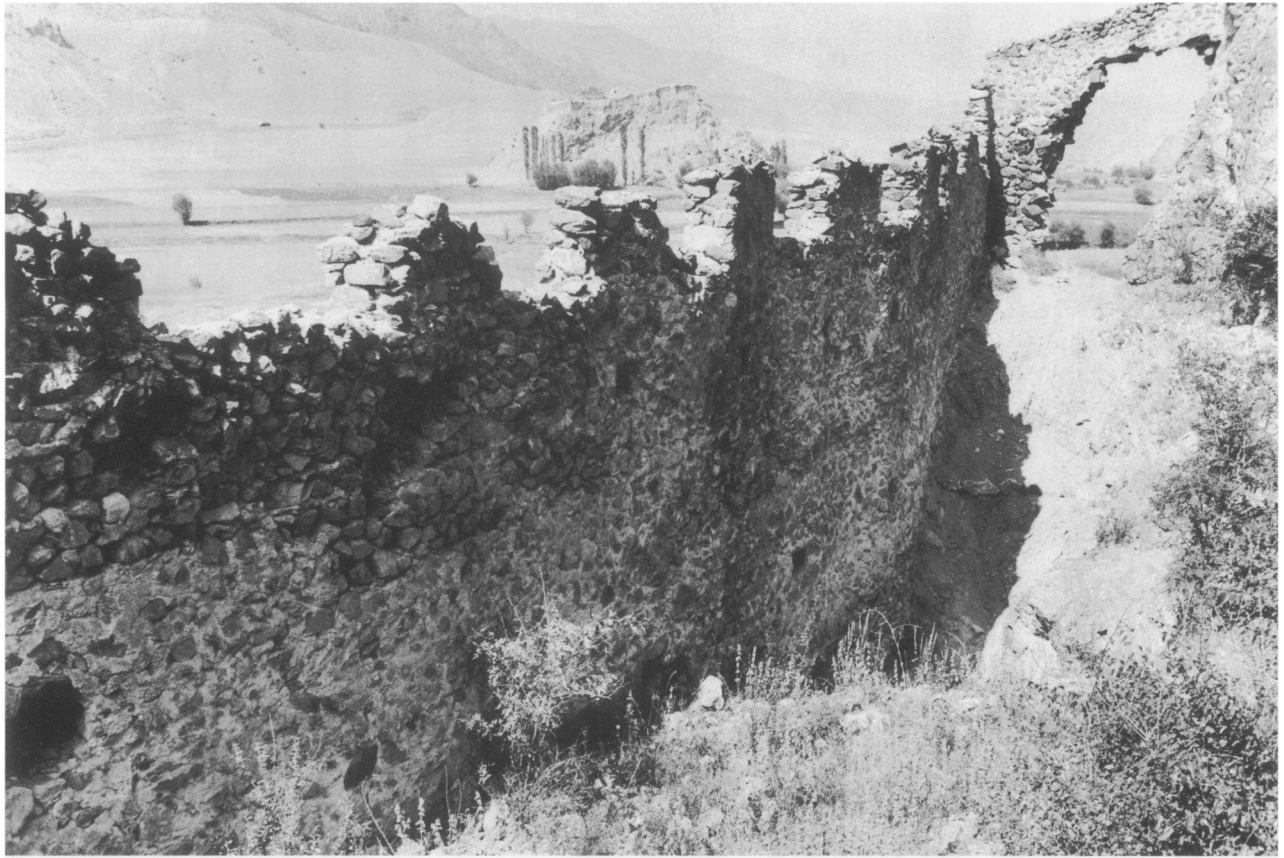
60. Kız (near Olan), Exterior, looking North at South Circuit



61. Kız (near Olan), Exterior, looking North at Upper Bailey



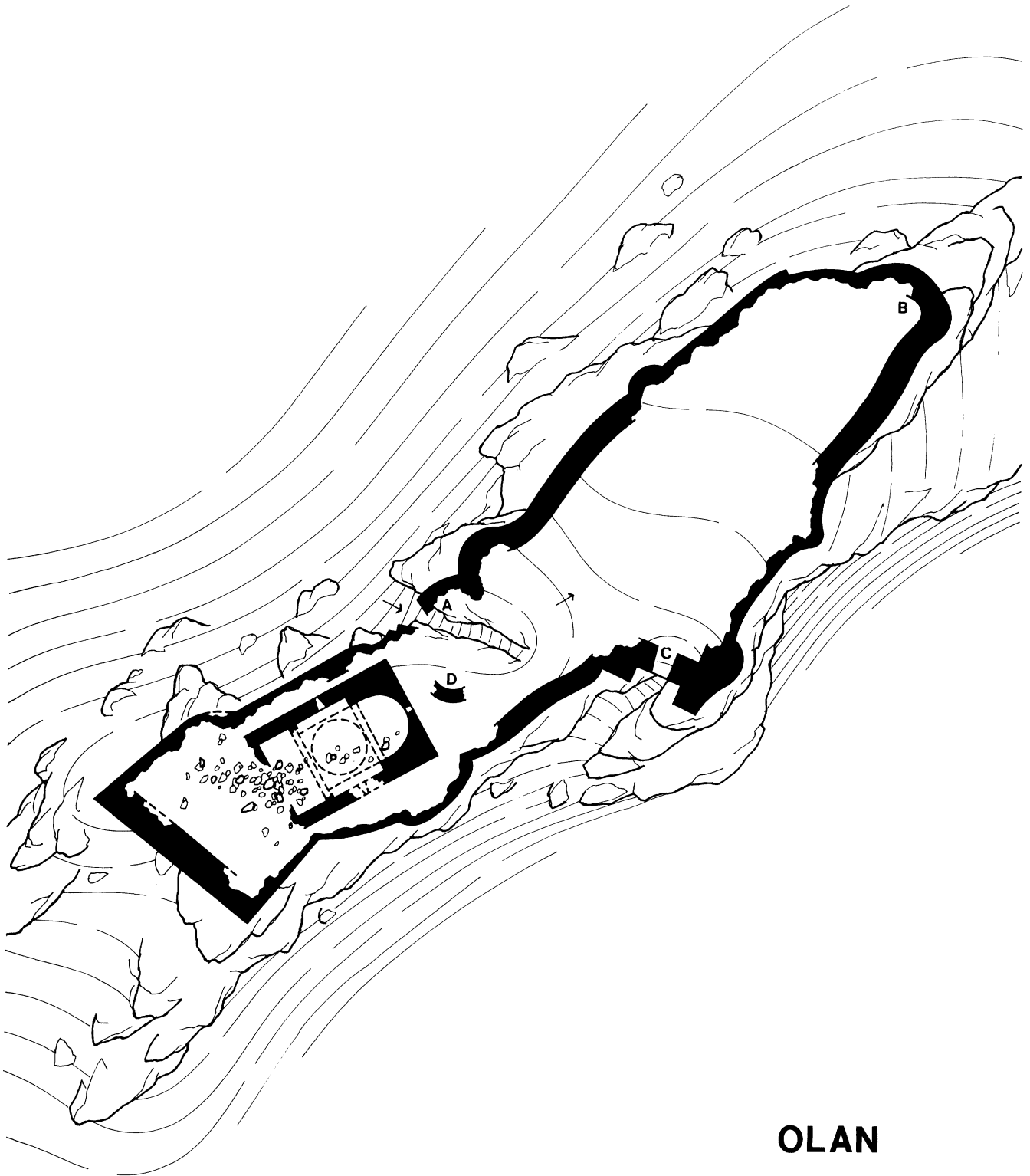
62. Kız (near Olan), Exterior, looking Northwest at Upper Bailey



63. Kız (near Olan), Interior, looking Northwest, Lower Bailey Entrance (right); Olan (top, center)



64. Kız (near Olan), Interior, looking West from Summit to Middle Bailey



OLAN



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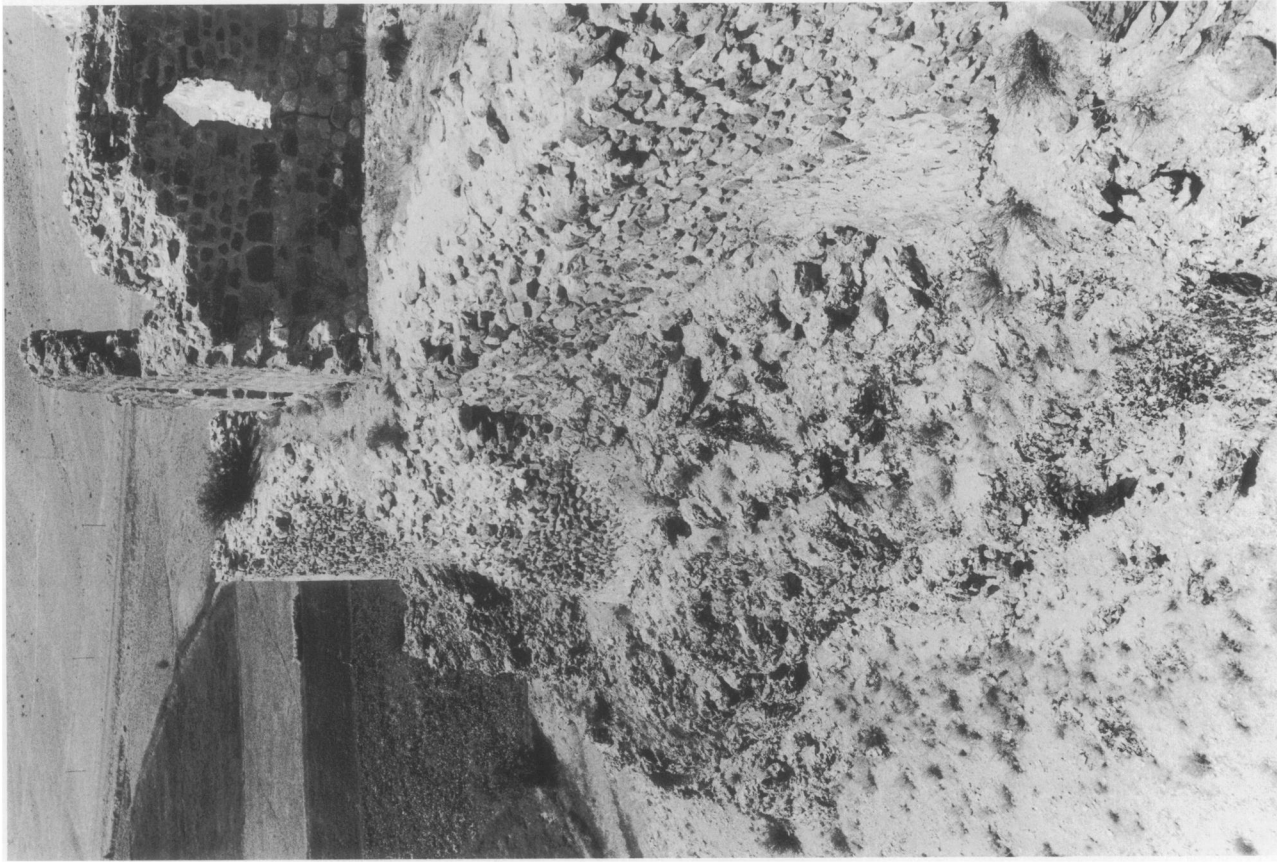




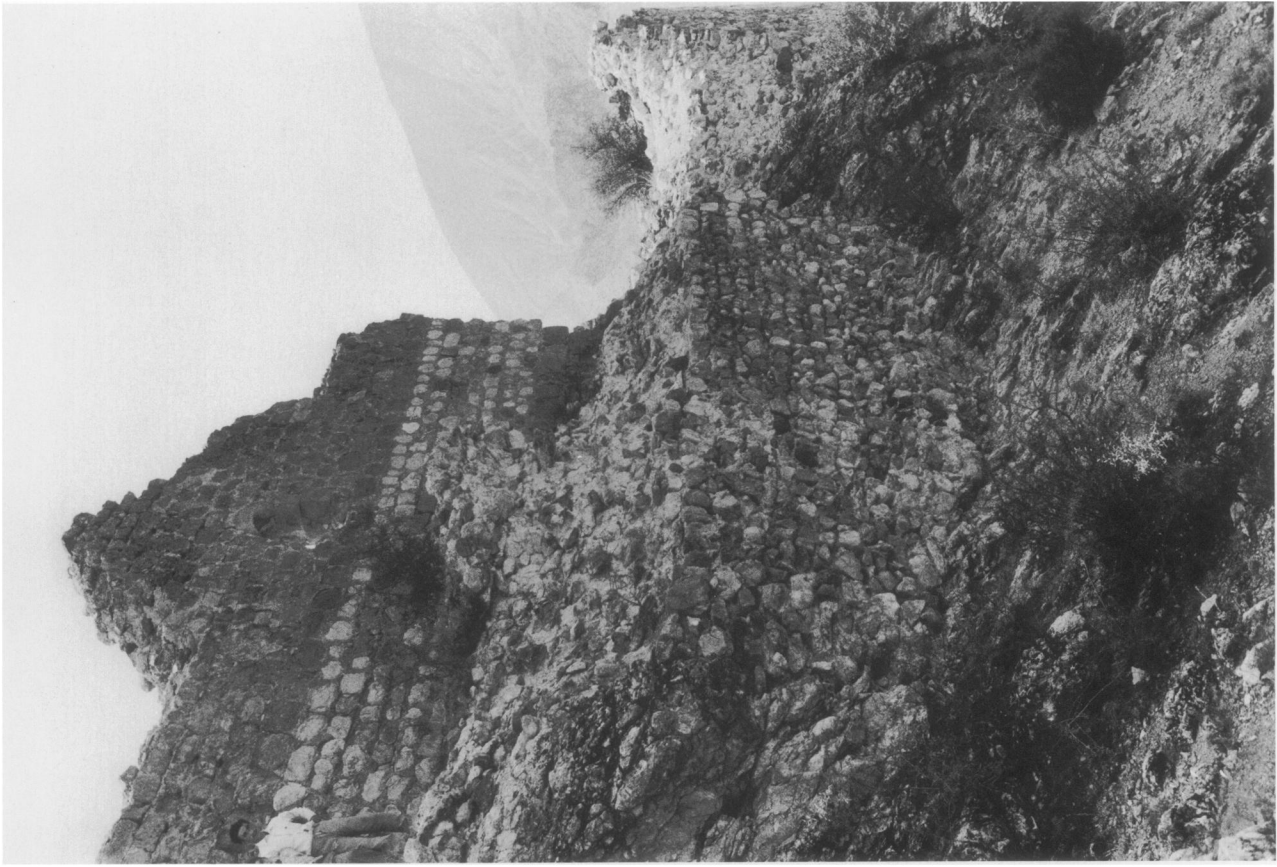
66. Olan, Exterior, looking North



67. Olan, looking Southeast from Cloister



68. Olan, looking Southwest along South Flank of Circuit and at Church (top, right)



69. Olan, looking Southwest at North Flank of Circuit below Church (top, left)



70. Olan, looking Northeast into Church



71. Olan, looking North into Church

east (fig. 59), but would have been confined within a narrow corridor. Judging from the square joist holes in the interior face of the west wall of the lower bailey (fig. 63), the descending staircase must have been covered by some sort of wooden canopy, the top of which could have served as a platform to man the battlements. Perhaps occasional ports or machicolations were built into this cover to allow the defenders to fire down on unwelcomed guests.

A door in the south wall of the lower bailey gives access to the central bailey. This ward also is positioned at the base of the outcrop, occupying the south half of the west flank, and it too has a roughly rectangular shape (fig. 64). The interior slopes sharply upward at the east. Below and to the west of the west circuit wall of the central bailey is a rectangular enclosure, a partially collapsed cistern, and fragments of an adjacent wall. This enclosure probably served as a stable. Its exposed position on level ground would have made it difficult to defend. Perhaps the most curious feature of the fortress is that there is no clear access from the central to the upper bailey. The south wall of the central bailey abruptly ascends the steep face of the outcrop to join the upper bailey, which is entered from the east (figs. 60–61).

In the upper bailey all salients and corners exposed to direct attack have rounded, curving faces (figs. 61–62). Today access to the east door of the upper bailey is made along a crest of loose dirt which centuries of erosion have deposited on the flank of the outcrop. Like the lower bailey entrance, the sill of the east door is fronted below by a vertical face; entrance was gained with a removable ladder. Above the door and slightly to the south a large, horizontal plank of wood is embedded in the masonry. The wood is black, as if burned in a fire. Undoubtedly, the plank was once part of the support for a window or platform. In the door the lower two-thirds of the jambs are still *in situ*; the shape of the soffit and the method for securing the portal are unknown. On the interior fragments of a wallwalk, from which archers could man the platform, are visible above the door. The upper bailey consists of a lower courtyard and a small citadel-complex at the summit. In the southwest corner of the courtyard is an opening from which a clear view of the middle bailey can be obtained (figs. 59, 64). The passage to the summit is situated in a narrow cleft of the rock. Above the door fronting this upper-level complex are two joist holes, which must have supported the beams for a removable brattice or

machicolation. Like the east entrance into the lower courtyard of the upper bailey, the door here is adjacent to a tower, from which flanking fire could have been directed.

The masonry of this fortress is similar to that seen at Körolu Kalesi. The walls consist of inner and outer facings of crude stones with poured cores (fig. 61). The stones are aligned haphazardly, but are occasionally set in what could be called regular courses.⁹¹ The most distinctive feature about the exterior is the excessive use of mortar. Not only are the margins between the stones unusually wide, but the mortar is used as a stucco to cover much of the exterior. For the interior facing the roughly hewn blocks are smaller and set more closely together in less regular courses. Mortar is used sparingly. The most notable exception is the interior facing in the west wall of the lower bailey, where the stucco technique of the exterior is used (fig. 63). Except for minor areas of repair (fig. 60, below center; fig. 63, upper left), the walls of this fortress reveal only one building period. Hasty construction and limited finances would be the most likely explanations for the use of such crude masonry by the Armenians.

Olan

The church and cloister of Olan are situated atop an oblong outcrop which is independent of the neighboring mountains (fig. 63, top; fig. 66).⁹² This site is located just northwest of the garrison fort of Kız and east of the Oltu-Artvin highway (fig. 68). Southeast of Olan a gap in the mountains provides convenient access into the northeast corner of the Oltu-Penek valley (fig. 67). This trail connecting Olan to points east increases the strategic value of the fortress of Kız. By reason of its present location Olan was certainly a part of the medieval P^canaskert.

Except at the southwest, the walls of the cloister are carefully adapted to the rocky summit (figs. 65–66). In a few places large pieces of the jutting outcrop have been surrounded by masonry. Today the circuit varies in height from one to four meters.

⁹¹ This masonry is more crude than that of the second major period of construction at Oltu Kalesi.

⁹² A plan and short description of this church were published by Niels and Danielle Gutschow ("Kirchen," 243 f.). They refer to this site as "Pernak Kilisse." Since my survey differs substantially from their earlier study, another discussion of this site is warranted. For other sightings of the church refer to the publications in the second paragraph of note 30 *supra*.

The small rounded salients on the face of the wall did not serve as fighting platforms, but merely as external buttresses (fig. 68). The only practical entrance through the circuit is at point A (figs. 65, 70), where a fragment of what may be a jamb is still visible. The outcrop is most accessible on the west flank. The sill of a broadly splayed rectangular window is still visible at point C. The unusual features in this wall are the two sharp corners at the south (fig. 66). Both corners are covered with stucco, which is normally confined to the lower sections of the circuit. In general the exterior facing of this circuit is quite similar to the interior facing of Kız, except that the stones at Olan are slightly larger (fig. 69). For the most part this circuit is simply a retaining wall to prevent the erosion of the summit (fig. 68).

Apart from the church there are no substantial remains of buildings inside the circuit. East of the church at point D there is a fragment of a curving wall. Whether a room here had a secular or religious function is unknown. It is possible that wood and stone buildings occupied the north half of the cloister.

Unfortunately, the church at the south is severely damaged. The entire covering over the nave and most of the apsidal semidome and west wall are missing today (figs. 70–71). On the exterior the church is a simple rectangular structure, devoid of adornment; the only noteworthy feature of the façade being its masonry. The exterior facing closely resembles the first building period at Oltu Kalesi. It consists of regular courses of rectangular stones bound by a thin, poured core and broad bands of mortar on the exterior (figs. 70–71). Except for the large rectangular blocks, which make up the single course of the socle, most of the lower third of the façade is constructed of a gray sandstone (figs. 68–69), the upper two-thirds of a dark reddish stone. This two-tone coloration is unusual in the churches of Anatolia, but not unprecedented.⁹³ This same pattern is continued on the interior, but the margins of mortar are much wider. The interior facing was covered completely with a painted stucco (figs. 70–71).

On the interior the church is divided into an apse and a nave. The apse is pierced by a single splayed

window, now partly shattered (figs. 68, 70), but apsidal niches, which are fairly common in both Armenian and Georgian ecclesiastical architecture, are absent here. The nave is separated into two unequal bays by a transverse arch (fig. 71). In the north wall of the east bay of the nave is an embrasured window (figs. 69, 71), and in the opposite wall at the south there is a large breach, in which a door was probably positioned. The top of this breach is rounded as if a small embrasured window was once accommodated above the door. It seems likely that a door was located also in the west wall. On the interior the high north and south walls of the nave's east bay have rounded apices (fig. 71), which outline the shape of the now collapsed relieving arches. These arches abutted at right angles to the transverse arches at the east and west. Pendentives rose from each of the corners to help support a drum and cupola over this slightly rectangular bay. On the exterior the cupola was probably covered by a pyramidal roof; the drum was defined at the base by four narrow gables over the four supporting arches. At the east the gable may have been extended to cover the entire semidome. The low-level barrel vault over the west bay of the nave probably had a separate gabled roof. It is quite possible that the nave was preceded by an atrium or narthex at the west (fig. 70), but the precise shape of the west end can be determined only after excavation.

From the present remains it seems likely that the Armenians are responsible for the construction of this cloister. The circuit wall here reveals some similarities to the construction in the neighboring garrison fort of Kız, which appears to be Armenian in origin. Further, in Georgian ecclesiastical architecture it is *extremely* rare to come upon an aisleless church with a simple apse (i.e., one without apsidioles) in which the main bay of the nave is covered by a cupola. Such a design is more common in Armenian ecclesiastical architecture.⁹⁴

CONCLUSION

From the preceding discussion it appears that at different periods the Armenians,⁹⁵ Georgians, and Byzantines held suzerainty in the Oltu-Penek val-

⁹³The dual coloration appears on the Armenian chapel in the central bailey of Anavarza; see R. Edwards, "Ecclesiastical Architecture in the Fortifications of Armenian Cilicia: Second Report," *DOP*, 37 (1983), 133. Compare P. Cuneo, "La Basilique de Tsiternakavank (Cicernakavank)," *REArm*, n.s. 4 (1967), 203 ff.; and F. Gandolfo, *Le Basiliche Armene* (Rome, 1982), 85 ff. and figs. 206–16.

⁹⁴Compare the churches of the Resurrection and the Holy Cross at Ketcharis (*Ketcharis*, Documents of Armenian Architecture, *supra*, note 35, 5 ff., 33–37, 43), and chapel No. 1 near St. Thaddeus (*S. Thadei Vank*, Documents of Armenian Architecture, 4 [Milan, 1971], 60).

⁹⁵From the mid-7th century to 772 the Mamikoneans administered Tayk' on behalf of the Arabs; see: Toumanoff, *Studies*, 209–11, note 238, 456 ff.; and *infra*, notes 96 and 105.

ley and participated in its defense. The fact that the natural mountainous defenses of the valley were supplemented by fortresses is an indication that the extremities of this geographical unit were for a prolonged period an armed frontier, presumably to protect against hostile neighbors from the north and west. I found no evidence of fortifications along the east flank of the vale, which may indicate that an attack from that side was not expected. A possible explanation of this strategy may be in the relative positions of the Georgian and Armenian provinces in this area.

Georgia and Armenia were under the grip of the Arab occupation for most of the eighth century.⁹⁶ In Georgia the Arabs were especially successful in decimating the Chosroids and the Guaramids, the two great dynastic families which supplied the Iberian princes. A branch of the Bagratids fared no better in Armenia, and migrated to Georgia in the late 770s. The leader of these exiled Bagratids, Adarnase, was related by blood to the Guaramids and when he arrived in Georgia the relatively poor regions of Erušet'i and Artani came under his control. Adarnase was also named as co-heir of regions to the north and south, Ĵavaxet'i and Klarjet'i, respectively. By 825 (?) Adarnase's son, Ašot I (the Great), had secured many of the provinces in Georgia and some adjacent Armenian lands (principally Tayk' in the Armenian-Georgian Marchlands). The Caliphate appointed Ašot prince of Iberia and the Emperor followed suit by granting him the title of Curopalate. For the most part Ašot's heirs held these lands and the Georgian crown through the tenth century.⁹⁷ The Georgian Bagratids are frequently associated with sites in the province of Tao: Oltisi (Oltu), P'anaskerti (Kız near Olan), and Bana (Penek).

However, the Oltu-Penek valley is too small to encompass other sites which are traditionally in-

cluded in the district of Tao: Taoskari, Işxani (İşhan), Kalmaksi (Kalmak), and Mamrovani (Narman).⁹⁸ The first three locales are considerably north of the Oltu-Penek valley, and Narman is outside one of the south entrances. Unfortunately, an extensive study of the philology of the place names for the rivers, forts, and mountains has yielded no concrete results, but has led each commentator on this region to shift or expand the borders of Tao. Georgian sources indicate that Tao was actually divided into two units: Hither or Lower Tao at the northeast and Thither or Upper Tao at the southwest.⁹⁹ Exactly how the Armenian province of Tayk' corresponds to Tao is unclear, especially since Armenian sources also include Koł (Georgian: Kola) in the boundaries of Tayk'.¹⁰⁰ In the Georgian texts Kola is a distinct regional unit from Tao. Ingoroqva has hypothesized that only Upper Tao corresponds to the occupied Armenian province of Tayk' and that Lower Tao was essentially a Georgian possession prior to the unification under Ašot I.

Toumanoff has raised two important objections to this thesis which warrant further discussion.¹⁰¹ First, he observes that the Georgian sources do not mention Tao from the Pharnabazid period to the late eighth century. However, in this case an argument from silence is especially dangerous, since so many Georgian sources from the early medieval period are lost or unpublished. Second, he notes that "there is the purely Armenian character of toponyms found in northern Tao."¹⁰² He questions the logic of locating so many Armenian place names (e.g., Olti, Mamruan, and P'anaskert) in Hither Tao. Frankly, I find that Toumanoff's objections, based on toponyms, are so sound as to justify rejection of Ingoroqva's boundaries for Hither and Thither Tao. However, I am not convinced that the idea of a Georgian Lower Tao prior to the ninth century should be dismissed, especially in light of my own

⁹⁶ M. Ghazarian, "Armenien unter der arabischen Herrschaft bis zur Entstehung des Bagratidenreiches," *Zeitschrift für Armenische Philologie*, 2 (1904); A. Ter-Ghewondyan, *Emirates in Bagratid Armenia*, trans. N. Garsoïan (Lisbon, 1976), 19 ff.; Toumanoff, *Studies*, 257 ff.; and N. Garsoïan, "Armenia: History of," *Dictionary of the Middle Ages*, ed. J. Strayer, I (New York, 1982), 478 ff.

⁹⁷ Z. Avalichvili, "La Succession du curopalate David d'Ibérie, dynaste de Tao," *Byzantion*, 8 (1933). The Georgian domination of Tayk' was by no means total. Around 897 King Smbat is said to have taken refuge in a portion of Tayk' which was controlled by Armenians; he then fled to a fortress in Tayk' which was in the possession of his close friend the Curopalate Adarnase IV. See: *Yovhannēs Draxanakert'i, History of Armenia*, trans. and commentary K. Maksoudian (Diss., Columbia Univ., New York), University Microfilms International (1973), 149 and 155, cf. 172; and Toumanoff, *Studies*, 492 note 249.

⁹⁸ Toumanoff, *Studies*, 456 note 77; and Honigsmann, *Ostgrenze*, 220.

⁹⁹ P. Ingoroqva, *Giorgi Merčule* (Tbilisi, 1954), 382–91, 491 ff.; and Toumanoff, *Studies*, 439 note 6.

¹⁰⁰ Toumanoff, *Studies*, 450–57 (= C. Toumanoff, "The Bagratids of Iberia from the 8th to the 11th Century," *Muséon*, 74 [1961], 251–60); and Adontz, *Armenia* (*supra*, note 5), 173.

¹⁰¹ Toumanoff, *Studies*, 454–55. Aside from these two objections, Toumanoff notes that "the penetration of Smbat VI Bagratuni as far as the northwestern frontier of Tao, . . . may in the context with the rest likewise go counter to that [Ingoroqva's] theory." However, the limits of Smbat's penetration are much disputed (*ibid.*, 453 note 62) and can have little bearing on the arguments concerning the traditional boundaries of Tao.

¹⁰² *Ibid.*, 455 note 70.

work in the Oltu-Penek valley. One of the most interesting discoveries of my field surveys has been the alignment of the fortresses. Not only do they run along the west and southwest sides of the Oltu-Penek valley, but they continue to flank the east side of Kara Dağ through Tortum.¹⁰³ It is most significant that all but one of the Armenian place names (i.e., Işxani) are located on the east side of these fortresses and mountains. It is quite probable that this east flank, which includes all the Oltu-Penek valley, is the Thither Tao of Georgian texts and a *part* of the Armenian Tayk^ç.¹⁰⁴ This would also explain the preponderance of Georgian toponyms to the west and north (e.g., Haho, Oşk, and Taoskari) and the presence of Armenian military construction along the Oltu-Penek valley. It is not the regional river system, but the configuration of mountains which formed the boundary between Hither Tao and north Tayk^ç (i.e., Thither Tao).¹⁰⁵ The fortresses are aligned in the mountains to block the traversable passes.

¹⁰³ Honigmann, *Ostgrenze*, 219–21; Wakhoucht, *Description*, 119; and Toumanoff, *Studies*, 453 f., 456 note 77, 490 f. North of Kız (near Olan) is the fort of Kalmak (unsurveyed). This site is on the same diagonal axis that runs from Tortum to Kız. Like the former, it is outside the confines of the Oltu-Penek valley. Kalmak was built by the Bagratid (Armenian) prince Aşot Msaker in the 8th century. Compare Badridzé, “Deux études” (*supra*, note 43), 169 ff., and Winfield, “Some Early” (*supra*, note 22), 66.

My placement of Kalmak (fig. 1) outside the confines of the Oltu-Penek valley and south of Klarjet'i does not resolve the controversy about the location of the estate of Eustathius Boilas; see P. Lemerle, *Cinq études sur le XI^e siècle byzantin* (Paris, 1977), 44–47.

¹⁰⁴ I believe that Honigmann (*Ostgrenze*, 160 f.) is correct in assuming that the ἡ ἐνδοτέρω Ἰβηρία of Skylitzes is northern Tayk^ç.

¹⁰⁵ *Ibid.*, 158 f.; and Toumanoff, *Studies*, 453 notes 62–63, 467 note 126, 468, 485. The paucity of Armenian construction and toponyms north and west of the Ak Dağları is *clear* indication that the Çoruh river was not the northern boundary of Tayk^ç in medieval times. For periods under both the Artaxiad and Arsacid dynasties as well as during the time of Persian suzerainty in the Armenian Marchlands (roughly from 387 to 591) part of the northwest border of Tayk^ç extended to the Çoruh river, where in all likelihood the majority of the population was Georgian. That a permanent line of demarcation existed along the axis of the Ak Dağları may indicate that the Armenian defenses were repositioned to the southeast after 591 or that only their sphere of influence extended into the Çoruh. The political upheavals which followed the Arab conquests in the mid-7th century brought additional numbers of Georgian settlers (probably Laz or Tzan) into the valleys of the Çoruh and Tortum. During this period a few Armenian communities northwest of the Ak Dağları seem to have prospered. Sebēos (*Histoire*, 136 ff.) tells us that the Kat'olikos Nersēs III was born in Işxani. Before the unsuccessful insurrection against the Arabs in 772, the Mamikoneans were probably responsible for most of the Armenian military construction in the Oltu region. From 772 until the consolidation under the Georgian king Aşot I, it is possible that the Armenian Bagratids controlled northern Tayk^ç. The de-

A knowledge of the location of the border between Hither Tao and Armenian Tayk^ç allows us to draw other conclusions about the history of this region. In the early eleventh century Basil II was locked in a struggle with the Georgian crown for control of the Oltu region. The Emperor believed that he held suzerainty over all of Armenian Tayk^ç, while Kings Bagarat III and Gēorgi attempted to reoccupy their lost patrimony, which dated back to Aşot the Great. The fact that Bagarat III died while in residence at Kız (near Olan) is certain indication that the Georgians had reoccupied at least part of north Tayk^ç by 1014. While the Mamikoneans are certainly responsible for fortifying the region before the mid-eighth century, the Greeks in the early eleventh century would also have been concerned

cline of the Mamikoneans obviously facilitated the Georgian conquest. The Oltu-Penek valley seems to make up a large part of the canton (*gawar*) of Botxa within the province of Tayk^ç. See: Lewond, *History of Lewond, the Eminent Vardapet of the Armenians*, trans., intro., and commentary Z. Arzoumanian (Philadelphia, 1982), 120, 149; Pseudo-Movsēs Xorenac'i, *Aşxarhac'oyc'* (Venice, 1881), 28, 35; S. Eremyan, *Hayastana ast "Aşxarhac'oyc'"* (Erevan, 1968), 45, 59, 84, 118, map; Toumanoff, *Studies*, 439; Adontz, *Armenia*, 21–24, 384 note 42, 385 note 45, 397 note 24a; N. Garsoian, “Armenia, Geography,” *Dictionary*, I, 472–74; Hakobyan, *Urvagzer*, 255f.; and A. Bryer, “Some Notes on the Laz and Tzan (II),” *Bedi Kartlisa*, 23–24 (1967), 163f. H. Taşean (*Hay bnakc'ut'wna Sew Žovēn minc'ew Karin* [Vienna, 1921], 53–83), who derives much of his information from the 17th-century text of Hakob Karnec'i, discusses a continued (but limited) Armenian presence in Tayk^ç through the Ottoman period.

Yovhannēsean seems to extend the boundaries of Tayk^ç to encompass Bertagarak and the region northwest of the Çoruh river, but for the medieval period such an inclusion is not historically justified. On Yovhannēsean's map (*Hayasdan*, opposite page 609) fortresses are positioned at Tortum, Boiberd (probably Sami), Narman, Oltu, Berdik, and P'āčaskert. His placement of the latter two sites is unclear. On his chart Berdik seems to correspond to the Kız (i.e., P'anaskert) or Sağoman on my map, while P'āčaskert is close to the site which I tentatively identify as Kalmak. The near identity of the toponyms P'āčaskert and P'anaskert probably means that Yovhannēsean positioned the former too far north. To add to the confusion, on one recent map a separate village and pass called “Panaskirt” are located directly east of Olur by distances of 17 km and 36 km respectively; see W. Allen and P. Muratoff, *Caucasian Battlefields* (Cambridge, 1953), 266, map 19. Yovhannēsean also labeled two sites, Hawaçişi (Haho) and Tayoc'k'ar (Taoskari), as fortresses, whereas both are actually *Georgian* monasteries; the latter, a partially fortified cloister, gave its name to the Georgian province (see Toumanoff, *Studies*, 495). The only other fortresses cited by Yovhannēsean on his map are T'uxars and Ēraxači. T'uxars is a fortress near the border of Tao in Cholarzene (see Toumanoff, *Studies*, 453 note 62). Ēraxači, which Yovhannēsean positions northwest of Işhan on the Çoruh river, has not been located in modern times. The modern town of Erkinis (on the Çoruh) does not have a fortress. Beyond the west flank of the Oltu-Penek valley fortresses are first encountered along the Torum Suyu, at Işhan, and near the monastery of Kinepos (southeast of Işhan). The location of the last site was kindly given to me by Professor Waktang Djobadze. Also see M. Özder and A. Aydın, *Yaza ve Resimlerle Çevre İncelemesi*, vol. I, *Artvin İli* (Ankara, 1969), 37.

with the valley's defenses. That repairs to existing forts and even construction of new military architecture were undertaken during the period of Greek occupation is not impossible. Since the fortresses of the Oltu-Penek valley have a distinctively Armenian appearance, we can assume that any Greek-period construction was performed by indigenous Armenians. What is certain is that the forts were not commissioned by the Georgians. The only verifiable evidence of Iberian construction in the Oltu-Penek valley are the churches at Bana, Kamhis, and Oltu Kalesi. If, during the ninth and tenth centuries (i.e., the longest periods of Georgian suzerainty in the vale), their intent was to secure only the valley, then they would have sought to defend its east and southeast flanks along Abusar Dağ and Baskut Dağ. Georgian suzerainty probably extended farther to the south and east. No fortresses with peculiar Georgian features¹⁰⁶ have yet been

¹⁰⁶ For a description of the peculiar features of Georgian military architecture, see *supra*, note 22.

found in the region of Tayk⁶. The defenses along the northwest flank of the Oltu-Penek valley functioned as part of an Armenian Maginot Line in the Marchlands until the creation of Thither Tao in the ninth century.¹⁰⁷

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¹⁰⁷ It is not known whether these fortresses functioned as part of the defensive system in the late 15th and early 16th centuries, when the valley was included in the principality of Samts'khe. The local *atabegs* (later called *beylerbeyis*) often shifted their loyalties between the Turks and the Persians. By 1550 this region was absorbed into the Ottoman Empire and temporarily became part of the *Çıldır Eyâlet* (see: M. Brosset, "Description de l'ancienne Géorgie turque," *JA*, 13 [1834], 465 ff.; D. Pitcher, *An Historical Geography of the Ottoman Empire* [Leiden, 1972], 127, 140, map xxxi; and G. Véchapèli, *La Géorgie turque* [Bern, 1919], 11–22). When the Russians occupied the fort at Oltu (1877–1920), they drew part of their new boundary with the Ottoman Empire along the same diagonal axis as the medieval forts so as to encompass the traditional lands of Armenia. See V. Guinet, *La Turquie d'Asie*, I (Paris, 1890), 130 map, 161, 201 ff.